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ABSTRACT

This report provides background material on recent developments and reforms in Greek education for the Organisation for Economic Cooperation and Development (OECD). The report consists of three parts. After a review of educational reform and policy trends in the last 20 years, part one describes the structural components of the education system before and after the reform of 1976-1977. The second part deals with quantitative information on Greek education and society, with particular emphasis on trends in enrollments, student/teacher ratios, educational opportunities and the performance of the system. Part three describes and analyzes two major pieces of legislation: Law 309/1976 on general education and Law 576/1977 on technical and vocational education. A summary of the publication in French is included. (Author/RM)

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EDUCATIONAL REFORM POLICIES IN

GREECE

SO 013 329

SUIVI D'UN RÉSUMÉ EN FRANÇAIS

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
PARIS 1980

Oct 2

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PREFACE

This report has been prepared under OECD's programme "Reviews of National Policies for Education". Its main purpose is to provide background material on recent developments and reforms in Greek education for OECD and the team of examiners for this project*. Particular emphasis has been placed on the ongoing changes in the general and technical sectors of the education system. At the same time, this document represents an effort at self-examination. It casts an analytical look at the recent reform programme and its rationale, and takes stock of certain quantitative and qualitative characteristics of the education system with a view to further evaluation and planning.

There were two previous reports on Greek education sponsored and published by OECD. The first, issued in 1961, presented a rather sketchy review of the reform prospects of the time. The second, published in 1965, was narrower in scope and more detailed. As part of the Mediterranean Regional Project, it was an assessment of educational needs and requirements approached from the perspective of manpower planning.

The present document is the first comprehensive examination of current educational policy and practice, set against the background of certain trends and characteristics of Greek schools and society.

The report consists of three parts. After a review of educational reform and policy trends in the last twenty years, Part One describes the structural components of the education system before and after the reforms of 1976-1977. The second part deals with quantitative information on Greek education and society, with particular emphasis on trends in enrolments, student/teacher ratios, educational opportunities and the performance of the system. Part Three describes and analyses two major pieces of legislation : Law 309/1976 on general education and Law 576/1977 on technical and vocational education.

It is my hope that publication of this report and the OECD Examiners' report will make a significant contribution to further policy thinking and innovation in Greek education.

V.N. Kontoyiannopoulos
Under-Secretary of Education

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* The Examiners' Report, together with the record of the review meeting to be held in Paris within the OECD Education Committee, in November 1980, will be published subsequently in the series Reviews of National Policies for Education.

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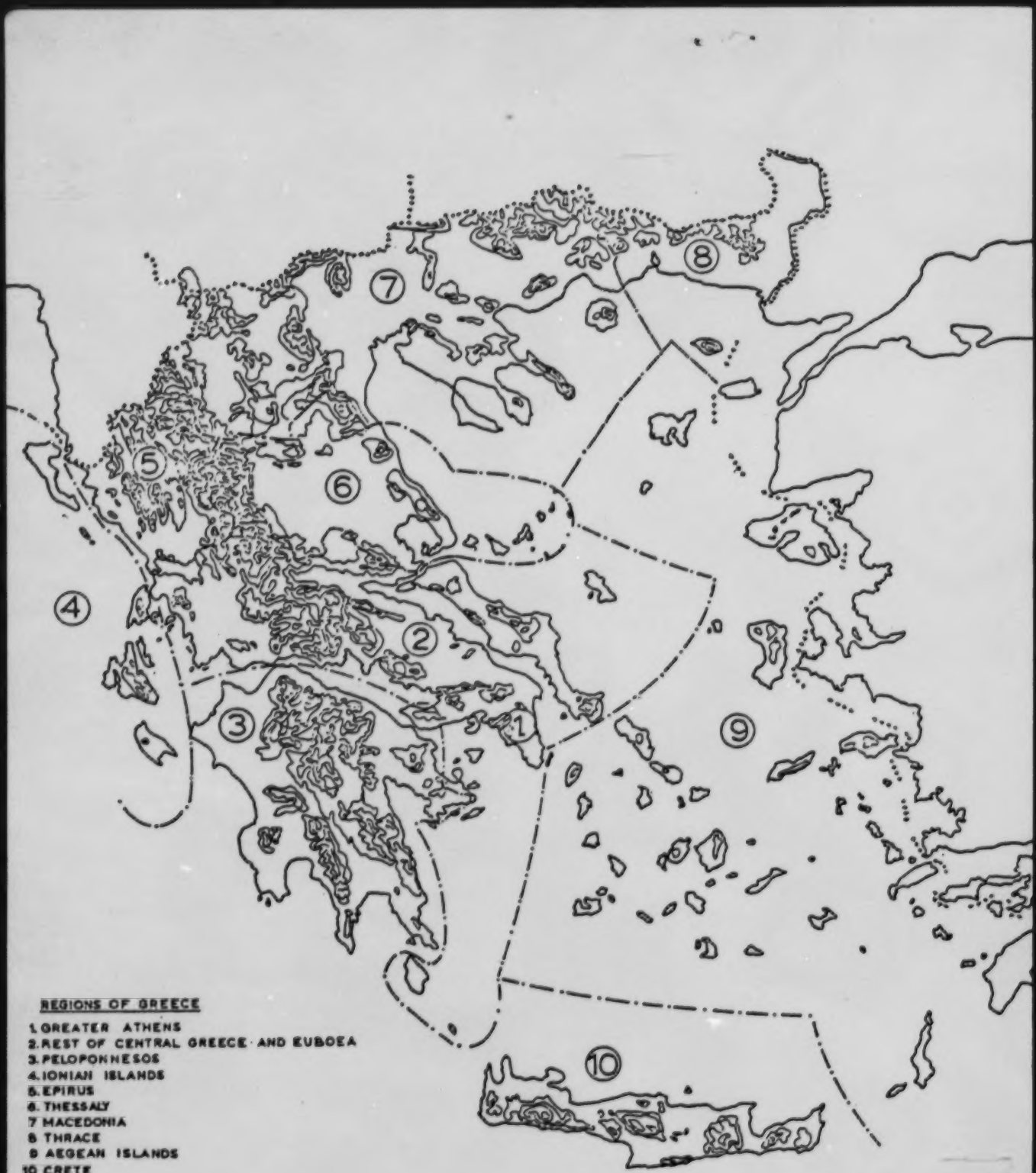
Part One

STRUCTURE OF THE GREEK EDUCATION SYSTEM BEFORE AND AFTER THE REFORMS OF 1976-1977


REGIONS OF GREECE
1. GREATER ATHENS
2. REST OF CENTRAL GREECE AND EUBOEA
3. PELOPONNESOS
4. IONIAN ISLANDS
5. EPIRUS
6. THESSALY
7 MACEDONIA
8 THRACE
9 AEGEAN ISLANDS
10 CRETE

Introduction

EDUCATIONAL REFORM AND POLICY TRENDS SINCE 1957 : AN OVERVIEW

In the last twenty years, as a result of changing socio-economic conditions, long-standing demands and plans for economic development, at least three major efforts were made by the government to change the structure and content of the education system. Educational reform, as is commonly referred to, has been considered to be necessary for the social and economic development of the country. An overview of the reform movement of the last two decades would provide the necessary historical background and conceptual framework against which the current policies and issues can be analysed and assessed.

The movement for educational reform can be examined in terms of three historical periods :

a) 1957-1963, under the first administration of Premier Karamanles
b) 1964-1965, under the Government of Premier G. Papandreou
c) 1974-1977, under the recent administration of Premier Karamanles and the "New Democracy" political party.

It should be noted that the major thrust of educational reform during these twenty years has been mainly to bring about changes in the pre-university school system, i.e., the general and vocational (elementary and secondary) sectors of education. This was especially true of the first two periods. Since 1974, there has been considerable pressure for the reform of post-secondary education, i.e., the university and non-university level institutions, which are referred to as AEIs and higher schools respectively.

A law-framework (Nomos Plaisio) was drafted in 1975, which, subsequently, went through several revised versions. In the summer of 1978, some important provisions were enacted into Law 815 "On the regulation of themes pertaining to the organization and functioning of AEIs". In addition, it is appropriate to mention here that Legislative Decree No. 652, published in the Government Gazette in August, 1970, authorized the establishment of KATEEs (Centres of Higher Technical Education), an important innovation in educational policy.

1. 1957-1963 : Faint Beginnings

Some of the main educational or educationally-related events of this first period were the following :

a) The Committee on Education, which in 1958 prepared a rather comprehensive report entitled Conclusions of the Committee on Education (Porismata Epitropes Paideias).
b) A series of education laws in 1959, notably Law 3971 "On Technical and Vocational Education, Organization of Secondary Education and Administration of Education", and Law 3973 "On the Unification and Coordination of the Administration of Vocational Education" (both in September 1959).

c) A series of reports issued by the Studies and Coordination Service of the Ministry of Education, after the 1959 legislative enactments.
d) The OECD report on Greece, which was part of the Mediterranean Regional Project.
e) The establishment in 1961 of KEPE (Centre of Planning and Economic Research), two functions of which were : (i) scientific programming of resource allocation for economic development, and (ii) technical economic training of personnel for key positions in government and industry.

Development and Educational Reform

Among the main themes in the aforementioned reports and policy statements about educational reform were the educational ramifications of economic development and, in turn, the economic significance of schooling. "Without good education" the Committee of Education noted in 1958, "our national income cannot be increased, nor can our social welfare and stability be ensured"[x]. Educational policy, therefore, must consider the demands made by the goals of economic growth upon the schools in terms of "human resource development", or training in appropriate skills and technical competencies. Based on such considerations, foreign and domestic experts, the Mediterranean Regional Project, the Studies and Coordination Service of the Ministry of Education, and KEPE prepared estimates of manpower requirements in accordance with economic development plans, and called for appropriate reforms in the manpower and other needs of the economy. A study from KEPE put it as follows :

> "Reforming the education system in a way that would provide a continuous stream of technically well-trained young persons adjusted to industry requirements and devising ways of attracting this stream to the expanding high productivity industries are also of primary importance. The Greek education system is highly imbalanced in training human resources for industry, while policy intervention up to now has greatly contributed to directing trained young people to stagnating, traditional and low productivity industries[xx]".

Several educational policy implications were drawn from this "education for development" perspective. The most salient one at that time, indeed at all times in Greece, was the expansion and coordination of technical and vocational schooling, which, for all intents and purposes, was outside the mainstream of the state-supported education system. It was largely provided though private initiative, in evening classes, or through ministries other than the Ministry of Education. It was generally felt to be inadequate, in terms of both quantity and quality. In 1958-59, for example, there were 39.824 youths attending vocational schools compared to 239.648 who were enrolled in the gymnasia.

To remedy this situation, government policy sought to reorganize vocational education into lower, middle and upper vocational and technical schools, and to place under government supervision all technical and vocational institutions. In addition, Law 3971 authorized the establishment of SELETE (School of Teachers in Vocational and Technical Education), a general directorate for technical education in the Ministry of Education, and two Higher Educational Councils for the preparation of curriculum, the study of textbooks and for personnel administration.

Another implication was the expansion of educational provision and the revision of the curriculum in order to make it, as worded in the Mediterranean Regional Project, "relevant to modern life".

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x Porismata Epitropes Paideias, June 24, 1957 - January 10, 1958 (Athens, 1958), pp. 20-23. Hereafter cited as Porismata.

xx George Coutsoumaris, The Morphology of Greek Industry, Centre of Economic Research, Research Monograph Series, No. 6 (Athens, 1963), p. 362.

> The curricula should be designed to create a wide cultural outlook which, though linked to traditional values, would ensure an understanding of modern life and create the intellectual flexibility required in an era of rapid social change. They should be balanced and coordinated, not only as regards the relative proportions of specialised and general studies, but also as between the different levels of education.*

Techno-economic considerations seemed also to have entered into the proposals of the Committee on Education as well as government policy regarding the organization of secondary schools. Secondary education was hitherto dominated by the monolithic and humanistically oriented six-year gymnasium. It was believed that its largely classical emphasis could no longer meet all the demands of the changing Greek society. The gymnasium, among other things, stifled any significant growth in scientific, technical or vocational education. Because of its central position in the cultural, educational and occupational spheres (it epitomized what the Greeks understood good education to be, and it was the main gateway to the post-secondary institutions, (AEIs), and thereby to high status jobs) it was greatly sought after by students. Large numbers of students, many of whom, according to public opinion, did not possess the required ability, as assessed through examinations, were channelled into the gymnasia. Almost half of those who entered dropped out after the second or third year, without the occupational skills demanded by the market. Of those who continued, only a fraction were able to pass the entrance examinations into AEIs. The rest encountered difficulties in securing employment. Yet because of the value which was traditionally placed on a gymnasium school-leaving certificate, its holders expected to find a suitable job.

The Organization (Structure) of the School System

In order to obviate such perceived anomalies government policy sought to reorganize and reorient secondary education. The six-year gymnasium was to consist of two successive three-year stages, not two self-contained cycles as the Committee on Education had recommended : a general "junior" or lower stage, and a differentiated "senior" or upper stage. The curriculum of the lower gymnasium, uniform in all schools, was to be based on the concept of "general humanistic paideia", basically denoting such subjects as ancient and modern Greek, religion, and modern foreign languages. In addition, it would include mathematics, physics, history, geography, handicrafts, music, physical education and civics. During this stage the interests and abilities of the pupils would be diagnosed, and appropriate educational and vocational guidance would be provided. At the successful completion of the three-year course, students would receive a school-leaving certificate for further education in the upper school, or in technical and vocational schools, and for entrance into minor clerical occupations. To provide flexibility, parity and better vocational orientation, the upper stage was to be differentiated into eight streams or types of gymnasia : purely classical, scientific, technical, economic, agricultural, maritime, foreign language, and home economics. Each of these schools or branches would perform a dual function : prepare for post-secondary studies in corresponding university faculties (schools), and for direct employment in corresponding occupational categories. All school-leaving certificates (apolyteria) would be regarded as equivalent for entry into university and non-university level institutions. In order to make this possible and ensure the acquisition of a humanistic culture, a core of subjects (ancient and modern Greek, one modern foreign language, physics and mathematics) would be required of all students in all types of schools.

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* The Mediterranean Regional Project - Greece, OECD, Paris, 1965, p. 33. Hereafter cited as MRP Report.

Following the government policy framework outlined above, some changes took place, but in general they were not as far-reaching as some had optimistically predicted. At the administrative level, two general directorates (one for general education and the other for vocational education) were set up within the Ministry of Education. The Studies and Co-ordination Service, established in 1956 for the purpose of conducting research into problems of education and advising the Ministry on legislation, seems to have become more active. Some new types of gymnasia (agricultural, technical, etc.) were provided and six technical secondary schools began operating in the provinces. In the lower secondary stage, the time devoted to mathematics and physics was increased somewhat, and a short time was allotted to civics, first aid and the "study of the environment". New programmes of study for the upper level of the gymnasia were drawn up, but the distribution of subjects in terms of categories such as humanities vs. sciences, and literary-linguistic vs. other subjects, and the amount of time allotted to the traditional staple of the curriculum, e.g., ancient and modern Greek, history, geography, philosophy and mathematics remained substantially constant. In any case, even those curriculum changes envisaged by the reformers did not go beyond the paper stage. On the more positive side, SELETE was established, which is still in operation.

The Language Question

Another area of dispute with deep historical roots and with far-reaching socio-political ramifications was the language question. In education, this question revolved around the place of the two forms of modern Greek, namely, katharevousa (the "pure" form) and demotike (the "popular" form), in the school system. Different views were expressed by members of the Committee on Education, the majority view being that the demotike, free of dialectal idioms, should be "the language of the elementary school". However, the Committee also recommended that in the fifth and sixth grade readers, "texts" written in the "simplified katharevousa" should also be included, but the grammar of katharevousa was not to be taught "systematically". In the first cycle of secondary education, however, katharevousa would continue to be taught methodically. But "texts" from recognized authors of modern Greek literature were also to be included, "so that students will cultivate the demotic language".

2. The Educational Reform of 1964-65

Educational reform, which in Greece has always been a political issue, was given top priority by the Centre Union Government headed by George Papandreou (1964-1965). In 1964, Parliament enacted Law 4379 "On the Organization and Administration of General (Elementary and Secondary) Education".

Some of the ideas, principles and concerns regarding educational reform during this period were similar to those of the period already examined. Especially noteworthy is the fact that, according to the Karamanles Reform, technical and vocational education needed to be expanded and improved, and that such a type of schooling was important for economic development.

But this period was also marked by important innovations and a clearer restatement of older questions. There was, for example, great stress placed on the expansion of education, on linguistic reform, changes in the curriculum and the system of selection (examinations).

Democratization of Education : Expansion of Opportunities

Some policies sought to expand opportunities for education, and they were justified

on political, social and economic grounds. They were felt to be consonant with the goals and ideology of a liberal democratic policy (freedom, equality and justice), and the requirements of economic efficiency (development and full utilization of human resources). Specifically these policies included :

1. Free education at all levels of the publicly-supported system, including AEI's.
2. Nine-year compulsory education (ages 6-15) (not implemented).
3. Abolition of examinations from the elementary school to the new three-year gymnasium.
4. Division of secondary general education into a self-contained and unselective three-year general gymnasium that followed the elementary stage, and a highly selective and equally self-contained three-year lyceum.
5. The establishment of the "Academic Certificate", perceived to be analogous to the French baccalauréat and the German Abitur, which was designed to alleviate some of the problems associated with the entrance examinations into AEIs. The examinations for the Academic Certificate were to be :
   a) conducted on specified dates in various cities of the country, not in Athens and Thessalonike as had been the case ;
   b) based on the subject matter taught in the lycea ; and
   c) marked by secondary school teachers, not university professors.

The Curriculum

There were two major aspects of the curriculum where the George Papandreou government went further than its predecessor : the language question, and the study of ancient Greek. Heretofore the demotike, in a form both orderly and non-dialectal, was to be "freely used in speech and in writing" at all levels of education ; and it was to be the language of instruction and of text books in the elementary school. Pupils in the last two classes of the elementary school would "familiarize" themselves with katharevousa, and both the grammar and syntax of katharevousa would be taught in the gymnasium and the lyceum. As to ancient Greek, Law 4379 provided that in the gymnasium "the teaching of Classical Greek Literature shall be carried out through accepted translations" and that systematic study of the language, i.e., "in its grammatical and syntactical form" would begin in the first class of the lyceum (grade 10).

Post-secondary Education, Research and In-service Training

The government paid attention to the post-secondary level of education, an area which, from all accounts, was also in desperate need of change. One aspect of this type of education was teacher training in the Pedagogical Academies, which came under non-university higher education. Law 4379 provided that the course of study in these institutions be extended to three years, instead of the existing two. And to meet certain shortages of secondary school teachers, e.g., physics, mathematics and modern foreign languages, a scheme of intensive training in special programmes was to be introduced.

A legislative plan "On the Establishment of the Universities" noted that high-level manpower was needed for the economic and intellectual advancement of the country. It envisaged the creation of four new universities (in Athens, Crete, Patras, Ioannina) and a branch of the Polytechnical School of the University of Thessalonike in Larissa. This scheme, however, as for technical and vocational education, did not materialize.

Finally, during this period a Pedagogical Institute was set up, located in Athens and under the authority of the Ministry of Education. The Institute's functions included, inter alia, educational research, in-service training of teachers and curriculum development.

The Educational Reform of 1964-65 : A Commentary

The actual policy changes of 1964-65 were comprehensive and in some respects progressive.

At one level, they were circumscribed by a strong educational tradition which was primarily classical, humanistic and literary in its intellectual orientation, and socially elitist and highly selective in function. At another level, they were pervaded by a reform ideology, prevalent in most Western societies at the time, which perceived educational reform mostly in terms of "pedagogical" or school changes without as much concern for concomitant socio-economic transformations.

3. The Reforms Today

The present reform movement, under way since the collapse of the military junta and the restoration of constitutional government in 1974, is embodied in the Constitution adopted in 1975 and in major educational legislation that followed.

Article 16 of the Constitution provides that education is a state responsibility. Its purpose is "the intellectual, moral, vocational and physical development of the Greeks, the promotion of their national and religious consciousness and their formation into free and responsible citizens". According to the same article, compulsory education "cannot be less than nine years", and "all Greeks have the right to free education in state institutions of all levels". Furthermore, the Constitution stipulates that the State is responsible for the provision of "vocational and any other type of special education by means of higher-level institutions of not less than three years' duration", and for the "specification of the employment rights of the graduates of such institutions".

The main educational policy decisions and plans of the current reform period can be classified and summarized as follows :

A. General, Technical and Vocational Education

Three important pieces of legislation were passed : (a) Law 309/76 "On the Organization and Administration of General Education" ; (b) Law 576/77 "On the Organization and Administration of Secondary and Higher Vocational and Technical Education" ; and (c) Law 682/77 "On Private Schools of General Education and School Boarding Houses".
The main provisions of this legislation as regards state education were :

a) Extension of compulsory education from 6 to 9 years (ages 5 1/2 to 14 1/2).
b) Reorganization of secondary education into :
   i) three-year general and compulsory gymnasia (ages 11+ to 14+), followed by
   ii) three-year selective, classical, general, or technical and vocational lycea (ages 15+), or one to two-year newly established vocational schools (ages 15+).
c) Abolition of lower vocational schools (ages 11+)
d) In addition to the above, technical and vocational education will include higher technical and vocational schools of two to three years' duration, the majority of which will consist of three-year KATEEs (Centres of Higher Technical and Vocational Education).
e) Establishment of demotike, free of idiomatic and extreme elements, as the language of instruction and text books at all levels and types of education.
f) In the gymnasium, the study of ancient Greek texts in modern Greek translations.

For a schematic pi ture of the new organizational structure of the educational system, see Figure A.

B. Curriculum Development, Research and In-Service Training

a) Law 186/75 on the establishment of KEME (Centre for Educational Studies and In-Service Training).
b) Establishment of SELME (School for the In-Service Training of Secondary School Teachers) and SELDE (School for the In-Service Training of Primary School Teachers).
c) Electives in the second and third classes of the lycea and other innovations such as the introduction of educational T.V., educational/vocational orientation, technological subjects in the gymnasium and cultural activities.

C. Admission into AEIs (school grades and panhellenic examinations)

D. Higher Education (university and non-university levels)

a) Law 815/1978 on the organization and administration of AEIs.
b) Draft Bill on the Pedagogical Academies (teacher training institutions for elementary school teachers).

E. Committees and Study Groups

Before or parallel to the several laws and draft bills, numerous committees and study groups have been at work on various aspects of education, viz., curriculum development, vocational guidance, implications of nine-year compulsory education, educational technology, graduate studies, reorganization of the university level social science schools and programmes, planning and development of post-secondary education, etc.
In view of (a) the seven-year experience when constitutional rights and civil liberties were suspended and the country was in the iron grip of a military dictatorship, (b) the contemporary political atmosphere in Western democracies, and (c) Greece's expectations (now certainty) to enter the European Economic Community, it is not surprising that the reform literature and the controversies that have surrounded it abounded in references and appeals to the principles of democratization, modernization and efficiency.

Education and Democracy

When it was introduced in the Greek Voule (Parliament) in April 1976, the law-plan on general education (voted as Law 309/1976) was described as a piece of legislation "which in every aspect is inspired by democratic and popular ideas", and the entire reform package as "the foundation of democracy".

Several provisions, separately or together, were justified on the grounds that they were in line with the principle of democratization. These included :

a) the extension of compulsory education ;
b) the abolition of entrance examinations into the gymnasium ;
c) the language reform ;
d) the reorganization of post-compulsory education into equivalent general and technical lycea ;
e) the introduction of the study of the social environment and elements of democracy in the curriculum ; and
f) the explicit statement that one of the basic aims of the gymnasium and the lyceum was the fostering of a democratic spirit. Such measures, plus the improvement of teacher training, better equipment, and a "modernized" curriculum, were felt to

provide the mechanisms, the infrastructure, the environment and the content for the expansion of educational opportunities and the development of democratic values. At the same time they would contribute to educational and economic efficiency.

Education and Efficiency

One of the persistent criticisms of the Greek education system, particularly at the secondary and post-secondary levels, has been its inefficiency as regards its perceived educational and socio-economic functions. Large numbers of students, for example, dropped out before completing the secondary school (the six-year gymnasium) without possessing the appropriate skills (intellectual or practical) to enter life or the world of work. Others were forced to attend middle level technical schools after completion of a full secondary school course.

Even those who managed to finish school were poorly prepared either for work or for further education. This contributed to the growth of frontisteria and other para-educational activities, unemployment among graduates of the gymnasium, or the need to seek supplementary practical training for employment. Some even claimed that there was considerable "ignorance" among school graduates (i.e., there were glaring gaps in the knowledge of history, mathematics, Greek, etc., which they were supposed to possess). Educational inefficiency was attributed to poor teaching, overcrowded classrooms and high pupil-teacher ratios, poor facilities and anachronistic curricula and methods of selection (for example, the system of examinations) which prevailed when Karamanlis took power.

Government intentions have been to revamp and modernize the curriculum, to upgrade the education of teachers, and to make the system of selection more efficient. KEME has been very active in all these areas and its work is by no means completed at the writing of this study. SELME, the programme for the in-service training of secondary school teachers, is in its second year of operation and the Bill for the elevation of the Pedagogical Academies to university status has been drafted.

In the curriculum area, the new grammar in the demotike has been prepared, and the language of textbooks has been changed from katharevousa to the demotike. In addition, Law 309 provided for the inclusion of "technological" subjects in the gymnasium, and committees of KEME are examining the best ways to introduce vocational guidance and educational technology in the schools. And new regulations have been issued* which modify the method of entry into AEIs.

Other provisions for curriculum change, which can be regarded as efforts to modernize education and make it more efficient, are the establishment of demotike as the language of instruction and textbooks, and the teaching of ancient Greek in modern Greek translation. For a long time, critics of the system have argued that the suppression of the popular form of the Greek language was deleterious to the intellectual and cultural development of Greek youth and the building of a cohesive nation. At the same time, classical education (which essentially involved ancient Greek) had come to be regarded as co-extensive with Greek paideia and Greek civilization and, therefore, as a main ingredient of "Greekness".

Such inefficiencies as mentioned above contributed also to economic inefficiencies. The school system, it was believed, did not equip adequately the students to meet the economic needs of either the individual or society. Technical and vocational education was quite undeveloped relative to general education, and the latter, provided in the gymnasium,

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* Implementation has already started.

was too classical, humanistic and literary. It was thought that this state of affairs was not satisfactory for purposes of economic development and Greece's goal to enter the European Economic Community. More so than before, one sees economic efficiency arguments brought forth to support educational reforms. This was under-scored by the Under-Secretary of Education in his introduction to Parliament of the Bill on technical education as follows :

> Both pieces of legislation (the general and the technical) are interdependent and express the government philosophy of education. At the same time they confirm the internationally accepted principle, adopted and implemented by the government, that education is an investment of capital which produces the manpower required for the economic, social and cultural development of the country.

Premier Karamanles himself declared that he would provide all the financial resources to expand technical and vocational education and attract more students into the technical schools*. The leader of EDEK, the main party of opposition, described education as "the most productive social investment". He stressed that it must be made more relevant to the needs of the economy and that the proportion of students in the general, technical and vocational schools be adjusted to coincide with that of other European countries**.

One measure to make education economically more efficient was the diversification of post-compulsory secondary education into general, technical and vocational schools and the efforts to increase enrolments in the technical and vocational schools as well as the KATEE's. This was to be achieved through examinations after the gymnasium, which finally became more "allocative" than selective ; students who passed both examinations, i.e., for the general and for the technical and vocational schools, could opt for either type of school.

4. Theoretical and Ideological Perspectives of the Reform Movement

The reform impetus in each of the periods outlined above was occasioned by particular sets of internal and external considerations and circumstances (social, economic, political). In their turn, the promulgated policy guidelines and measures reflected the ideological orientations and practical concerns of the governments in power, as well as the tensions and contradictions of a modernizing society with deeply entrenched historical traditions. At the same time, one detects a striking concordance of ideas, values and assumptions about the role of education vis-à-vis the individual and the society, the role of the government in educational provision and control, the nature, organization and dissemination of knowledge, educability among the population, traditional culture, and science and technology.

Education, Development and Society

The reform of the education system was envisaged in relation to certain conceptions about the structure and development of Greek society, as well as the role of the schools in the Greek economy and polity. There was, for example, an acceptance of the view, which pervaded the international literature and underlay plans for change in the 1950s and 1960s, that an expanded, rationally designed, efficient and "modern" education system could play an important part in economic prosperity, social stability and the creation of a better life. "Upon the good and productive functioning of the educational institutions", the Committee on Education of 1958 wrote, "depends not only the promotion of intellectual

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* Kathemerine, February 14, 1977.

** See Parliamentary Proceedings, April 7, 1976, p. 4111 and To Vema, May 8, 1977.

civilization but also the economic development of the country, and therefore the future of our people".* The first Five-Year Plan of 1960-64 considered the development of human capital and technical education as basic desiderata for accelerating the transformation of the structure of the Greek economy (from agricultural to industrial) and the raising of the living standards "to the level of highly industrialized European countries".** And in the prefatory memorandum to Legislative Decree 4379 of 1964 it was stated, inter alia, that "it would be harmful to the welfare of the nation if its human resources - the most precious 'capital' - remained underutilized and inactive through lack of education". The memorandum went on :

> "At a time when Greece is facing stiff competition in the international economic arena, she has only one sure hope of national survival : through education to equip her citizens with the means to exploit her natural resources and to develop the material and intellectual civilization of the country. Besides, it has been recognized and proclaimed universally that educational spending is an especially profitable form of investment".***

The optimism about the beneficial social and economic effects of schooling continued in the 70s and was reaffirmed with renewed vigour in connection with the reform policies of 1976-1977 (Law 309 and 576) as well as the Five-Year Development Plan of 1978-1982. "It has been demonstrated", the Under-Secretary for Education stated during the debate in Parliament on the technical education bill, "that the main factor of production in the free economies (more important than capital) is suitable educated manpower". He continued : "It has also been historically shown that the uneducated or the unskilled person has been too receptive a material for social and political exploitation". And in another vein : "Education constitutes investment in fixed capital since it creates the human resources which are required for the economic, social and political development of the country".****

One cannot, as yet, find in Greek policy-thinking the scepticism or at best the uncertainties expressed in the international literature or policy documents of other countries regarding the economic or social powers of the education system.*****

Related to the aforementioned theoretical aspects were certain ideological components of the development policies of the government. Clearly the vision of a better society and the goals of modernization bore the imprint of the liberal democratic mould with its emphasis on a market economy, private enterprise, individual competition for jobs, organized expert knowledge, and careers open to talent.

Such a model provided certain conceptual parameters for educational reform. It was believed, for example, as noted above, that education contributed to economic growth and modernization. The implication here is that education can be a factor in social change.

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* Porismata, op.cit, pp. 20-23.

** Kingdom of Greece, Ministry of Coordination, Five-Year Plan (Programme) for the Development of the Country, 1960-1964, (Athens : 1960), pp. 167-169, 170-176 (in Greek).

*** The Kingdom of Greece, Ministry of National Education and Religions "On the Organization and Administration of General Education (Elementary and Secondary), "Legislative Degree 4379/1964 (Athens : National Printing Office, 1964) pp. 16-17.

**** See Parliamentary Proceedings, 23 February, 1977, pp. 3358-59.

***** See, for example, Donald K. Adams, "Development Education", Comparative Education Review, Vol. 21, Nos 2/3 (June/October, 1977), pp. 296-310.

It should be remembered nevertheless, that the nature and direction of growth and modernization were themselves circumscribed by the liberal model of development, which also provided the impetus, the guiding principles, and a fortiori the limits of educational reform. In this sense it can be said that the role of education was adjustive or responsive to the needs and requirements demanded by the development model. The new needs, created by the development policies and goals, necessitated, among other things, increased amounts of schooling for the entire population, expert knowledge, especially in the scientific and technological domains, and generally a more functional and efficient education system (better methods of selection and allocation, more modern curricula and methods of teaching and the like).

Functional efficiency was a predominant consideration in the reform movement of the last twenty years. There was generally less emphasis on social equity considerations (the distributive aspects of education), and none on participation, which characterized reform trends in other liberal societies.

Society, the Individual and Public Policy

Elements of the liberal democratic perspective, as developed in Western democracies, were also implicit or explicit in the reformers' views about the role of public policy vis-à-vis the individual, and in the educational reforms regarding compulsory education, access into and progress within the education system, selection and examinations.

It should be remembered that a fundamental tenet of classic democratic liberalism, as Daniel Bell points out, is individualism. According to it, the individual, and not the community or the State, is the single most important unit in society, and the purpose of "societal arrangements" or public policy is "to allow the individual the freedom to fulfill his own purposes". Individuals, however, differ in their natural endowments, motivation and energy. Therefore, social arrangements should provide the necessary mechanisms or opportunities to allow for fair competition among individuals and for the fulfillment of the diverse human interests and abilities*. A corollary implication of the above is that while public policy should seek to remove unfair barriers and to create opportunities for one's advancement, commensurate with one's talents, the extent to which individuals make full use of such opportunities and procedures is their own responsibility. This, of course, to a large degree depends on the natural endowments of the individual, his motivation, energy, drive and effort, over which the State has no control.

In Western liberal societies several educational policy implications have often been drawn from the ideological framework outlined above, while actual educational changes have often been justified on such liberal premises. In several of its assumptions and concrete policy directives, especially in the structural aspects of the education system, the Greek educational reform movement described in this chapter bears strong similarities to liberal educational changes in other Western societies. Thus, for example, the extension of free and compulsory education aims at universalizing educational opportunities of all individuals, at least up to the age of 15, to develop their native abilities, and subsequently to make educational and occupational decisions commensurate with their interests and aptitudes. A fair system of examinations, organized and administered by the State, ensures that admission and promotion into the various levels of the education system is based on assessed individual capacities rather than on socio-economic background. In its turn, the organization of schools into common and uniform gymnasia, followed by separate lycea and vocational schools, allows

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* See Daniel Bell, The Coming of Post-Industrial Society, Penguin Books, 1973, p. 425.

for both the already-mentioned universalism in educational provision and the also necessary diversification based on individual achievement. This structural reorganization, when taken in conjunction with the system of examinations, is in line with the twin liberal principles of what the sociologist Talcott Parsons has called "universalism", instead of "particularism", and "achievement" instead of "ascription".

Chapter 1.1

THE STRUCTURE OF THE EDUCATION SYSTEM, THE SCHOOLS AND THE CURRICULUM : BEFORE AND AFTER THE REFORMS

1. GENERAL EDUCATION (SCHOOLING)

Compared to other European countries the organizational pattern of the Greek system of general education (public or state and private) before the recent reforms (1976-1977) looked rather simple. It consisted of six years of compulsory elementary education (ages 5 1/2 to 11 1/2) and six years of selective secondary (ages 11 1/2 to 17 1/2). The secondary level, given in the gymnasium, was organized into two three-year successive programmes of study. Admission into the secondary level was contingent upon the completion of the elementary level and the passing of entrance examinations. Continuation into the six-year gymnasium depended on the regular methods of promotion from class to class. The upper classes of the gymnasium provided some options, e.g., (a) the "theoretical" with an emphasis on humanistic education (mostly classical and literary subjects), (b) the "practical" (scientific) with an emphasis towards mathematics and the natural sciences. In addition, there existed a small number of night "high schools" for working students over 14 years of age. Attendance in such schools lasted for at least 7 years.

Students who had successfully completed the six-year gymnasium obtained a school-leaving certificate (apolyterion) which entitled them to sit for the annual entrance examinations for university and non-university level post-secondary institutions (higher education). As noted in the Introduction a constitutional provision and two important pieces of legislation (Law 309 and Law 576) enacted in 1976 and 1977 altered the organizational and institutional framework of the school system. Compulsory education has been extended from six to nine years (ages 5 1/2 to 14 1/2) encompassing the six-year primary (elementary) stage and a three-year lower secondary stage, the latter to be known as gymnasium. Examinations from the elementary school to the gymnasium have been abolished. The secondary level has been divided into two self-contained cycles of study, namely, the lower to be given in the unselective gymnasium and the upper to be provided in the selective and diversified three-year lyceum (ages 15+).

There are two main types of lycea : the general and the technical/vocational. Entrance into them is based on the passing of examinations given at the completion of the gymnasium. As from 1980-81, admission into the universities will be based on a composite index of achievement consisting of the results of national examinations given in certain subjects in the second and third classes of the lyceum, the grade point average on the lyceum leaving certificate, and the grades in the second and third lyceum classes. This method will have replaced the much criticized previous entrance examinations into tertiary education. (For a schematic presentation of the structure of the education system before and after the reforms, see Figure A).

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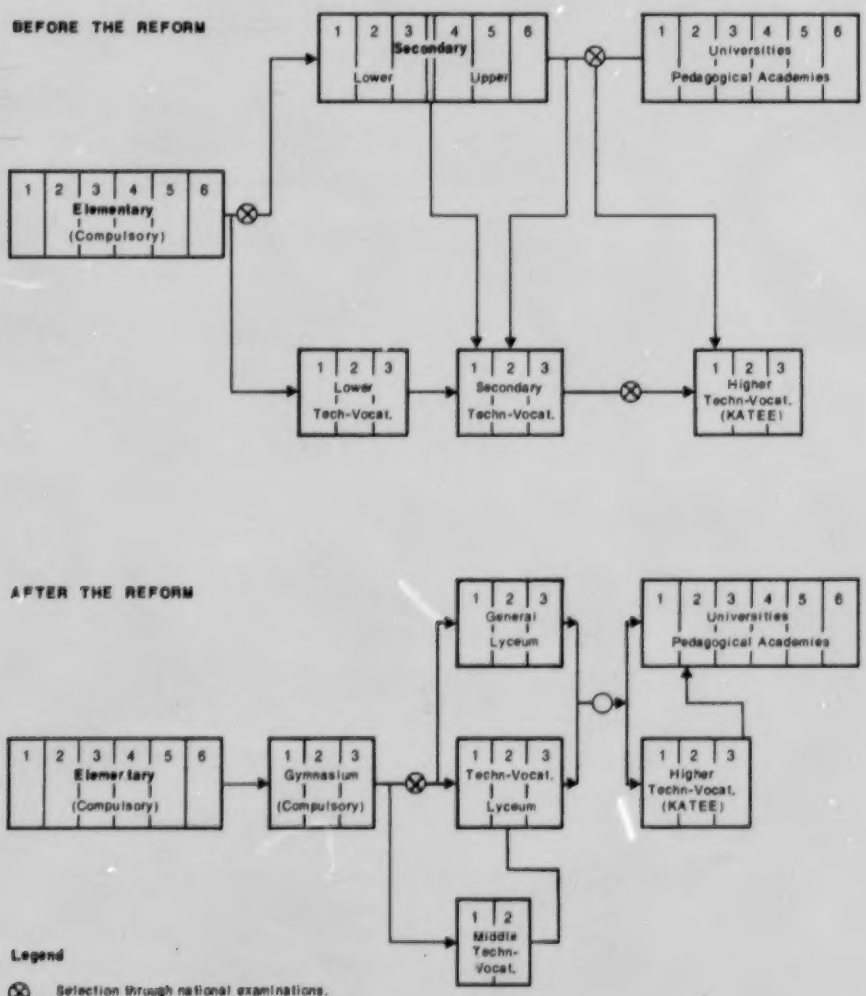
Figure A

STRUCTURE OF THE EDUCATIONAL SYSTEM BEFORE AND AFTER THE REFORM



Legend

⊗ Selection through national examinations.

○ Selection on the basis of a composite index of achievement, viz.,
(a) results of national examinations in the second and third classes of the lyceum,
(b) grade-point average on the lyceum school-leaving certificate (apolyterion),
(c) achievement (grade) in second and third classes of lyceum.

1.1. Types of schools and curriculum

1.1.1. Kindergarten (Nepiagogeion)

Before registering for the elementary school, a Greek child can attend a kindergarten, which is not compulsory. The role of this pre-school establishment has been mainly one of socialization viz., the cultivation of good personal and social habits and the adjustment of children "to their physical and social environment". (For quantitative data on enrolments, student/teacher ratios and educational opportunities, see Chapters 2.2, 2.3 and 2.4).

1.1.2. Elementary School (Demotiko scholeio)

In Greece the aims of this first level of formal education have always included* :

a) socialization into certain national, religious and moral values,
b) training in the 3 R's (reading, writing and computational skills), and
c) development of oral and written linguistic skills.

During the period of the military junta (1967-1974) there was an exaggerated emphasis on traditional nationalistic and religious values as well as on a rather conformist and passive code of behaviour.

Law 309/1976, which supplanted p evious legislation, defined the purpose of the elementary school as follows :

"... to lay the foundation of the education of children of primary school age".

More specifically :

a) to enrich their experience ;
b) to arouse and develop their physical and intellectual abilities ;
c) to introduce them into the knowledge of the physical and historical world ;
d) to cultivate their powers of observation, thinking and sensitivity ;
e) to awaken their moral conscience ; and
f) to lay the foundations of their religious, national and humanistic education.**

The curriculum of the elementary school, as specified in Presidential Decree 1034/1977, consists of religion, Greek language, history, geography, study of the environment, arithmetic, arts and crafts, music, citizenship, chemistry and physics.

The intellectual and moral orientation as well as the pedagogical climate of the Greek elementary school, as it emerges from reports, legislation and other policy statements, emphasizes socialization into traditional cultural values and the liberal-democratic, socio-political and economic order. At the same time, this first level of education seeks to transmit, through the teacher, a body of established knowledge to unformed pupils.

The aspect of the curriculum with a longstanding background of discord that ramified into the political and intellectual life of the country was the form of the Greek language that was to be used in teaching and in textbooks. As mentioned on page 12 the so-called "language question" was a major subject of concern at all periods of educational reform. The 1964 Act (Legislative Decree 4379/1964) specified that the popular language (demotike) would be the language of teaching and textbooks in the elementary schools. But, as a result of legislation during the seven-year dictatorship, the demotike was taught only in grades 1-4 in the elementary school, while a "simplified katharevousa" (apli Katharevousa) was used in the upper two elementary grades. (See Decree Law No. 651/1970, Article 25). The

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* See Kingdom of Greece, Government Gazette, No. 163, September 25, 1967, (in Greek). Hereafter cited as Law 129/1967.

**Law 309/1976, Article II.

junta, in short, re-established the Katharevousa to its previous privileged state. However, the new law has reintroduced the demotike as the sole language in the elementary school.

One characteristic of elementary education with important pedagogical, economic and social consequences has been its structural diversity regarding the physical and human environment of classroom organization. Aside from differences that existed before 1974 in physical facilities between schools in urban and rural areas and between schools in different parts of the cities (notably the Greater Athens area), disparities in the general environment for learning occur in the four different categories (types) of elementary schools. These types, which are known by the number of classrooms and/or teachers they have, are :

a) monotaxia (one-room schools with one teacher for all classes) ;
b) ditaxia (two-room schools with two teachers for all classes) ;
c) tritaxia (three-room schools with three teachers for all classes) ; and
d) polytaxia (four- to six-room schools, with four to six teachers).

A major concern of successive governments has been to reduce the large number of one-room schools (monotaxia). Still, in 1975-1976 there were 3,498 such establishments, which represented 38 per cent of the total number of elementary schools (8,962). These schools served a total of 65,283 students representing only 7.6 per cent of the total number of elementary school students (862,648).

1.1.3. Secondary Education

Until the recent changes secondary education was not compulsory. General secondary schooling was provided in state and private six-year selective gymnasia, following completion of the six-year elementary school and the passing of an entrance examination. The proportion of elementary school graduates who continued into the gymnasia rose steadily in the 1950s and the 1960s and just before the recent reforms stood at approximately 83 per cent.

We have already referred to the intellectual orientation of the six-year gymnasium (its strong classical and literary humanistic emphasis), its central position in the education system (it was the institution par excellence for the provision of general culture or liberal education, and the gateway to the universities), and its social as well as political significance (it controlled, so to speak, access into high status occupations). As also noted above, the gymnasium had often been an arena of controversy, and a subject of reform. Some efforts, admittedly rather modest and faint-hearted, were made to alter its monolithic structure and traditional curriculum. Yet the gymnasium proved to be too strongly embedded in the Greek educational culture and the social system. Moreover, the "anti-modern" educational ideas and policies of the junta were a serious setback in the push towards modernization. According to the junta Law 129, certain by then rather hackneyed ideological aspects of the gymnasium (e.g., emphasis on classical humanism, the values of the twin traditions of Hellenism and Christianity, nationalism, etc.) were recast in chauvinistic hyperboles and pompous formalities (see, for example, Article 8).

a) The lower secondary level : the new gymnasium

The lower cycle of secondary schooling has always been envisaged primarily to be a continuation of general education as defined by the Greek and Christian cultural traditions. Its role, like that of elementary education, was initiation (socialization) into an established set of beliefs, values and attitudes of mind. At the same time it was the preparatory stage for the more selective, specialized and differentiated upper cycle. The

curriculum of the lower secondary cycle included religion, ancient and modern Greek, a modern foreign language, history, geography, mathematics, physics, music, physical education, handicrafts and home economics for girls. About half of the weekly hours was allotted to the humanities (religion, Greek, foreign language, history and music), about one-third to religion and Greek, and about 20 per cent to ancient Greek alone. The reform of 1976 replaced the study of ancient Greek literature, which was carried out in the original, by "accepted translations in Modern Greek". In this way, it is believed that the students will be better able "to approach the spirit of the ancient texts" ; they will "love the ancient authors and seek out to study them on their own" ; they will be attached to and illuminated by the light of the Greek humanistic tradition ; and they will "transform into their guiding light the perennial values which they (the ancient texts) contain".*

The 1976 Act (Law 309) reformulated the aims of the new three-year gymnasium as follows :

... to complete and consolidate the general education of the adolescents. Specifically : to train them in the correct and precise expression of their thoughts and feelings and in the observation and analysis of the phenomena of the physical and social world ; to acquaint them briefly with the history and the most significant intellectual acquisitions of the Greek, the European and more generally the human civilization ; to help them to become conscious of their abilities and inclinations ; to sharpen their moral judgment ; to develop their religious and national conscience ; and to inspire in them beliefs consonant with the principles of the democratic polity of the country. (Law 309/1976, Article 26).

Law 309 specified five general curriculum areas (cycles) from which subjects were to be selected, viz., the theological, the literary/philological, the physico-mathematical, the artistic and the technological. It also provided that "elements of the democratic organization of the State, and educational and vocational orientation" be included in the programme of studies (Law 309/1976, Article 28).

The subjects and the timetable, as worked out by the Ministry of Education and KEME (Centre for Educational Studies and In-Service Teacher Training), and in force today, are presented in Table 1.1 which follows.

b) The upper secondary level : the lyceum

The stated aims of the upper cycle of secondary education have always included the provision of a more advanced general culture as well as a wider and deeper understanding of the Hellenic (ancient, medieval and modern) and Christian Orthodox cultural traditions.

It should be further noted that at all times one of the main functions of the six-year gymnasium and pari passu of its upper cycle has been to prepare students for tertiary education. This level of schooling was perceived to be for the ablest students (selected on the basis of cognitive achievement in national entrance examinations) destined to be the future leaders of society. In contrast, Article 29 of Law 309/1976 defines the aim of the upper level, i.e., the lyceum, as follows :

... to provide an education that is richer and broader than that of the gymnasium for those youth who are destined for higher level education or for higher demanding occupations. This type of education includes : a more systematic cultivation of the oral and written word ; a more profound study of the national literature and history and of world history, as well as of the cultural monuments, especially of the history of European civilization ; the

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* See Ministry of National Education and Religions, Centre for Educational Studies and In-Service Training, Suggestions on the Ancient Greek Literature in Translation (Athens : National Printing office, 1976), p. 17. Hereafter cited as Suggestions.

Table 1.1

PROGRAMME OF STUDIES OF THE GYMNASIUM
WITH WEEKLY HOURS ALLOTTED PER SUBJECT (1977)

Subjects	Weekly hours		
	A	B	C
Religion	2	2	2
Ancient Greek literature (in translation)	4	5	4
Modern Greek (Language and Literature)	5	4	4
History	3	2	2
Elements of Democratic Government	-	-	1
Mathematics	4	4	4
Foreign Language	3	3	3
Geography (including elements of Geology)	1 1/2	1	1
Physics - Chemistry (with elements of metallurgy)	-	3	3
Anthropology - Elements of Hygiene	-	1	-
Biology	1 1/2	-	1
Music	1	1	1
Art	2	1	-
Physical Education	2	2	2
Educ. & Vocat. Orientation	-	-	1
Technological Subjects	2 (for boys)	2 (for boys) 1 (for girls)	2 both
Home Economics	2 (for girls)	1 (for girls)	-
Total	31	31	31

Source : Presidential Decree, No. 831, Government Gazette, No. 270, 20 September, 1977.

development of critical thinking and imagination ; the more complete study of the physical and social world ; the strengthening of religious and national beliefs ; and a more substantial knowledge of the principles of the democratic system of government of the country.

Finally, according to the same law, the type of education provided in the lyceum seeks "to enlighten the mind and thus create free and responsible characters".

As with the gymnasium, the recent law specified certain curriculum areas from which the programme of studies in the lyceum would be drawn. These were : the theological, the literary/philological, the physico-mathematical and the artistic. At the same time elements of the democratic organization of the state were to be included.

The subjects and the timetable of the general lyceum in force today are presented in Table 1.2 which follows :

(For quantitative data on enrolments, student/teacher ratios, opportunities and performance of secondary education, see Chapters 2.2, 2.3, 2.4 and 2.5).

Table 1.2

PROGRAMME OF STUDIES OF THE TWO CLASSES OF THE GENERAL LYCEUM
WITH WEEKLY HOURS ALLOTTED PER SUBJECT (1978)

Subjects	Hours per week		
	Class I	Class II	
Religion	2	2	
Modern Greek	4	4	
Ancient Greek	6	5	
History	3	2	
Mathematics	5	4	
Geography	1		
Economic Geography		1	
Physics	4		
Physics - Chemistry		3	
Foreign Language	3	3	
Psychology		2	
Physical Education	3	3	
Technical	1		
Music	1		
Hygiene - Anthropology		1	
Total	33	30	
Electives		Option A	Option B
Ancient Greek		2	
History		2	
Latin		2	
Mathematics			3
Physics - Chemistry			3
Total		6	6
Grand Total	33	36	36

Source : Government Gazette, Nos. 79, 198, May 15, Nov. 23, 1978.

2. TECHNICAL AND VOCATIONAL EDUCATION

As shown in the Introduction, in the last two decades technical and vocational education has been a subject of concern, controversy and some administrative rearrangements. In the main, however, there was little substantive change in the technical educational policy. Notwithstanding the decrees of 1959 (Nos. 3971 and 3973) technical and vocational education did not grow substantially, while an initial draft of a technical education bill to supplement the 1964 reforms never reached Parliament.

The reasons for this inertia and the slow pace of reform in the technical and vocational area are as numerous as they are complex. By tradition, the Greek concept of "paideia" (culture, education) and knowledge as expressed in official reports and policy statements as well as by influential individuals and interest groups has mostly been understood and defined in intellectualistic, ethical, cultural and humanistic terms. One does not have to evoke the authority of Aristotle who differentiated between liberal and "banausic"

studies to lend credence to this observation. In 1958, the prestigious Committee on Education reaffirmed that the humanistic ideal, inspired by the Hellenic and Christian spirit, should constitute the foundation of Greek education. It continued :

> "...its (education's) purpose will be to give to society young men and women who have free convictions, are inspired by high ideals, are faithful to God and country (Fatherland-patris), love their neighbour, and, in their own person as in that of others, honour man as the crowning point of creation".

"Motivated by this noble ideal", the Committee went on, "the Greek school should give a prominent place in its curriculum to the benefits of 'classical' education".*

The structure of the education system, especially the centrality of the six-year general gymnasium, and the mechanisms of selection into AEIs, were not particularly conducive to the healthy growth of educational alternatives. The existing educational arrangements, taken in conjunction with the reward system in the society (in terms of prestige, status and occupational benefits), did not provide sufficient incentives for parents or students to aspire towards technical/vocational schools. Consequently, such schools became the refuge mostly of those who could not "make it" in the general branch.

Basically technical and vocational education in Greece began through private initiative, which, until the current reforms, accounted for most of the provision in that type of education. Even in the public sector technical and vocational education were largely the responsibility of ministries other than the Ministry of Education and Religions, as it is shown in Table 2.40, page 81. The overall private effort accounted for approximately 54 per cent of the students in the lower and middle technical/vocational schools in 1974-75.

The organization of technical/vocational education prior to Law 576/1977 was governed by the provisions of Legislative Decrees 3971 and 580, passed in 1959 and 1970 respectively. There were three levels of schools - lower, middle (secondary), and higher - each of which included a variety of specialties. Law 576 "On the Organization and Administration of Secondary and Higher Vocational and Technical Education" altered this organizational pattern. A schematic presentation of the gradual change, which also includes the system of general education, is presented in Figure B.

2.1 Lower technical/vocational schools

Students were admitted to these schools, without entrance examinations, after successful completion of the elementary school. They were schools for students who either did not demonstrate the achievement necessary for continuation into the gymnasia or, for several other reasons, did not want to proceed further in the general system. Generally the course lasted for three or four years (ages 12-14 or 15) and included several areas of vocational preparation (e.g., decorative arts, printers, radio-technicians plumbers, builders, cooks, agriculturalists, assistant nurses, etc.). In 1974-75, 62,967 students were attending 635 such establishments. Of these, 61,191 were in lower technical schools and only 1,776 in lower vocational ones (i.e. agricultural schools, schools of home economics, and schools of social services). As might be expected, the heaviest concentration of such schools and students was in the Athens-Piraeus and Salonica areas (40,981 students representing 65 per cent of the total). More detailed statistical information, showing also enrolment trends, is presented in Chapter 2.2.

According to the recent reforms, the lower vocational schools are gradually to be phased out by 1982-1983 (see Figure B).

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* Porismata, op.cit., pp. 20-23.

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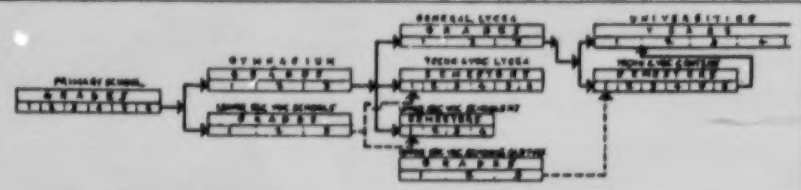
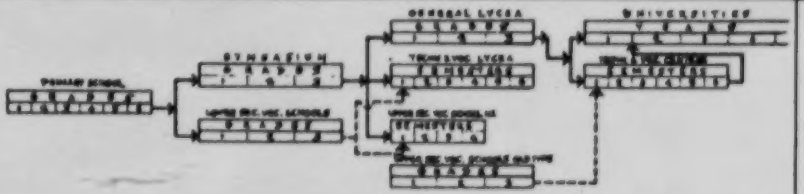
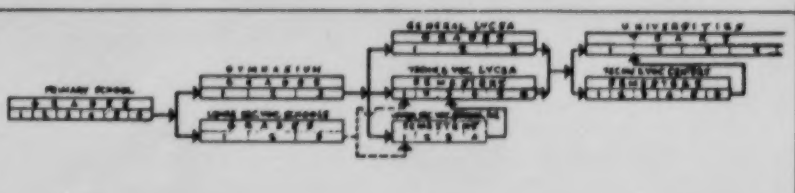
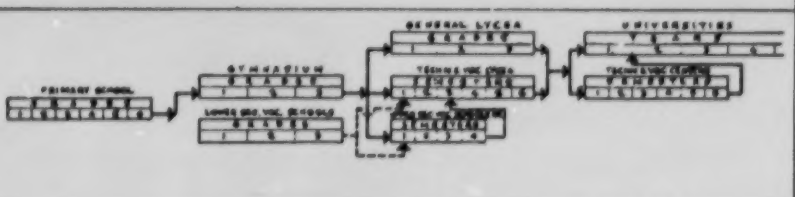
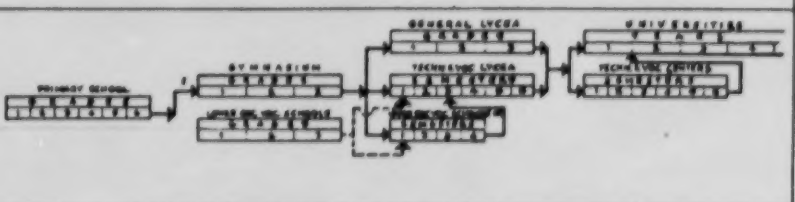
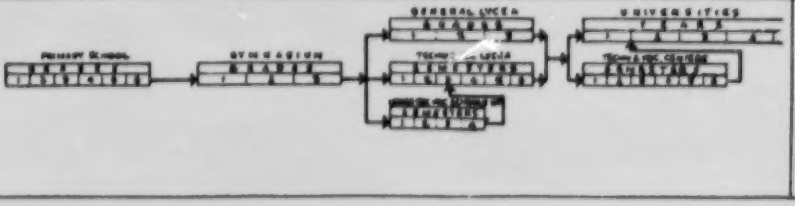
Figure B

GRADUAL PHASE IN OF NEW EDUCATIONAL SYSTEM

YEARS	EDUCATIONAL STRUCTURE	COMMENTS
1977-78		
1978-79		
1979-80		
1980-81		
1981-82		
1982-83		

LEGEND

GRADES OR SEMESTERS IN OPERATION

GRADES OR SEMESTERS NOT OPERATING

2.2. Secondary technical/vocational schools

In the past, secondary technical/vocational schools trained middle-level professionals in commerce and industry, e.g., electricians, radio and television technicians, mechanics, draftsmen, rural surveyors, maritime mechanics, accountants, foremen, medical technicians and the like. In addition, they prepared students for the priesthood and for agricultural occupations. Those who attended these institutions had completed their lower-level counterparts, or the lower stage of the gymnasia, or they had finished the six-year gymnasium itself. No entrance examinations were required. The course of study generally lasted for three or four years.

In 1974-75, 71,150 students were attending 780 secondary technical and vocational schools. Of these, 30,995, i.e. 43.6 per cent, were in state schools and the rest (56.4 per cent) in private ones. As with the lower level, secondary technical schools were proportionately more numerous and registered 81.6 per cent of the students.

With the new system, these schools are abolished and in their place a new type of secondary technical/vocational education is established, the other being the technical lycea, described below. Attendance in the new day technical/vocational schools is of one or two years' duration (2 to 4 semesters) depending on the area of specialization. Students completing the general gymnasium are admitted without entrance examinations, while those who finish the course may, after examinations, enter the second year of the technical lycea. The purpose of these schools, as laid out in Law 576, is :

"...to consolidate the general education acquired in the gymnasium, and mainly to develop the knowledge and skills which will enable the students to follow a career in a specific technical or vocational field" (Article 6).

2.3. Technical/Vocational lycea

One of the most important innovations in the structure and orientation of technical and vocational education, indeed of the education system as a whole, is the establishment of the technical/vocational lycea. It has also been a highly controversial one, as shown later in this report.

These lycea are the technical/vocational counterparts of the general lycea described above. As such they are three-year selective institutions (admission into them is based on entrance examination), and they lead to tertiary institutions (higher and highest) (see page 31). For admission into AEIs technical lyceum graduates must take the same additional subjects as the students in the general lyceum, group B (see Chapter 3.2). At the same time, however, they prepare directly for employment. Their stated purpose is :
... to provide a richer and broader general education than that of the gymnasium, and mainly to transmit to the students the necessary technical and vocational knowledge and to develop their aptitudes (skills) so that, when they graduate, they will be able to be employed successfully in a specific technical or vocational field (Law 576/1977, Article 9).

For quantitative data on enrolments, student/teacher ratios, opportunities and performance of technical/vocational education, see Chapters 2.2, 2.3, 2.4 and 2.5).

2.4. Other types of vocational education

Vocational training is also provided by public agencies as well as by public and private enterprises, e.g., the Organization for Manpower Employment (CAED), the Ministry of Mercantile Marine, the Ministry of Social Services, the Vocational School of Tourism, the Public Electricity Company (AEH), the Greek Telecommunications Organization (OTE), the Post Office (ELTA), the large banks and big industries. These agencies provide training

combined with apprenticeship programmes which are designed to serve the special needs of the companies. The programmes last from 6 months to 3 years. Smaller companies also, which want to upgrade the quality of their personnel in anticipation of the demands that the country's entry into the European Economic Community will make upon them, have been engaged in similar training activities.

Government policy has been to encourage this type of vocational education. In many instances it has provided financial and technical assistance for the better organization of the various training programmes.

Lastly, mention should be made of formal apprenticeship programmes (schools) which in 1978-79 numbered over 400 serving over 40,000 young people between the ages of 14 and 17.

2.5. Higher Technical/Vocational Schools and Centres for Higher Technical Education (KATEEs)

The technical/vocational branch of education was capped by the higher technical schools, which included : (a) Centres for Higher Technical Education (b) the Sivitanideios School of Engineering Technologists and (c) private establishments for the training of electronics specialists and ship builders.

Holders of school-leaving certificates from secondary technical/vocational schools or six-year gymnasia were admitted after passing entrance examinations. In 1974-75 there were 7,890 students enrolled in 295 higher technical schools, 5,158 of whom were in state-operated institutions.

2.5.1. KATEEs

Of the higher technical schools, the KATEEs have become the most significant since their operation in 1974 and are worthy of further comment. The establishment of KATEEs was authorized by Legislative Decree 652 issued in 1970. In 1974-75 the first students were admitted, after entrance examinations, in the KATEEs of Athens, Salonica, Patras, Larissa and Herakleion (Crete). In the original law, the purpose of KATEEs was stated as "the education (training) of higher level technicians (intermediate between university and middle level) who will contribute to the development of the national economy". Such education would include "theoretical study, laboratory training as well as on-the-job training under the supervision of the school". The length of study for full-time students would vary from one to three years and the areas of training would include engineering, food technology, livestock production, business administration, nursing, social work and other "health services", tourism, etc., in respective schools (e.g., schools of engineering, technology, agriculture, business administration, health services and graphic arts).

In 1976-77 more KATEEs (renamed Centres for Higher Technical and Vocational Education) were set up in Kozane, Kavalla, Piraeus, Florina and Seres. In 1977, 12,963 students were attending the existing KATEEs a figure which shows a tremendous increase since 1974-75 when they first opened. (In that year, 2,246 students were registered).

3. TERTIARY EDUCATION

The Greek system distinguishes two types of tertiary (post-secondary) education, which are also known by two different terms, namely "higher" and "highest" education. "Highest" education refers to the universities, the National Metsovion Polytechneion (also known as the National Technical University) and other institutions which enjoy university status. In abbreviated form "highest" institutions are known as AEIs. "Higher" education denotes non-university post-secondary educational establishments which include pedagogical academies, higher technical schools or centres i.e. KATEEs and other similar institutions.

The two types of education are differentiated in terms of length of study, in certain cases prior preparation and entrance requirements, and quality of teaching staff. These characteristics, plus (a) the differential occupational rewards that accrue from attendance at the two types, and (b) the traditional conception of Greek "paideia", have contributed to making AEIs enjoy higher prestige than the other tertiary institutions. Not surprisingly are they also more sought after by parents and students.

3.1. AEIs - Highest (university-level) Education

In 1974, when civilian rule was restored, there were 11 AEIs : five universities (Athens, Salonica, Patras, Ioannina and the National Technical University), and 6 university-level schools (Piraeus and Salonica Schools of Industrial Studies, the Athens School of Agricultural Studies, the School of Economic and Commercial Studies, the School of Fine Arts, and the Panteios School of Political Science. Since then, two more universities - at Thrace and Crete - and one technical university - Crete - have been planned, and are currently functioning in a limited capacity.

Constitutionally, AEIs have "legal independence" or are "self-administered" but are under the supervision of the State, through its Ministry of National Education and Religions. Thus they are public establishments, supported by the State, and subject to public law. Their internal governance, the number of the various ranks of the teaching staff (professors, lecturers, assistants, etc.) and the terms of their appointment, the system of examinations (entrance, yearly, and final) and grading, the method of distributing textbooks and other teaching materials to the students, the student unions, the disciplinary codes, etc., are all regulated by legislative decrees after proposals submitted by AEIs.

As with other types and levels of education, several aspects of AEIs (governance, entrance examinations, quality of teaching, size, etc.) have recently been the subject of public criticism and controversy.

For several reasons (e.g., educational reformism in the light of economic development plans, Greece's impending entry into the European Economic Community, increased demand for education, and internal social conflicts and pressures), since 1974 government has responded by appointing study groups and committees to evaluate AEIs and the entire system of tertiary education and to come up with recommendations for change. The upshot of these efforts was Law 815 "On the regulation of subjects (themes) pertaining to the organization and functioning (operation) of highest educational institutions (AEIs)" which entered the educational statutes in 1978. At the same time, plans are afoot for the reorganization of the pedagogical academies. (See below.)

Law 815 climaxed a reformist university atmosphere which was characterized by intensive activity in government, political and university circles.

3.2. Higher (non-university-level) Institutions

(As noted above, "higher" (anōtera) educational institutions are distinguished from the universities and other "highest" (anōtata) establishments. The former include : (a) the higher technical and vocational schools, i.e. the KATEEs, which were described earlier in this chapter, (b) the teacher-training institutions (Pedagogical Academies) and SELETE, and (c) several other types of schools.

3.2.1. Teacher Training Institutions

a) Pedagogical Academies

Pedagogical academies are two-year institutions preparing teachers for the elementary schools. They admit students who completed the full secondary school course (previously the six-year gymnasium, currently the lycea), are "physically and psychologically healthy", have "excellent" conduct and pass an entrance examination. Candidates with excellent marks on the school-leaving certificate are exempted from the written part of the entrance examination.

The programme of studies is regulated in detail through legislation and/or decrees which also specify the aims and general content of each subject. There are 14 Pedagogical Academies, with a total enrolment of 2,258 students (1975-76).

The government has already drafted legislation which, among other things, by 1982-83 will extend the course of study, and raise the Pedagogical Academies to the status of university-level institutions (AEIs).

b) Schools for Kindergarten Teachers

Very similar to the Pedagogical Academies in aim, organization and administration are 4 schools for kindergarten teachers. In 1975-76, these establishments enrolled 1,133 students.

c) Schools for Home Economics and Physical Education

Other types of institutions that are exclusively concerned with the training of teachers for general education are the National Academy for Physical Education in Athens, with its equivalent branch in Salonica, and two Schools of Home Economics.

The graduates of these schools take up positions in secondary schools, not elementary as the previously-mentioned Academies ; the course of study is three years instead of two for the Schools of Home Economics and four for the National Academy for Physical Education which is also known as a "highest" educational institution. Nevertheless, these schools do not enjoy the "autonomy" of university-level institutions, and they are governed by the laws and regulations of "higher" education.

In 1975-76, there were 1,013 students enrolled in these schools. (For quantitative data on enrolments, student/teacher ratios, opportunities and performance of higher education, see Chapters 2.2, 2.3, 2.4 and 2.5).

d) SELETE (School for the Training of Personnel for Technical and Vocational Schools)

As signified by its title, the purpose of this school is the education and pedagogical training of vocational and technical school teachers. It was established in 1959 (Article 29 of Law 3971/59) and began operating soon after. It is an autonomous establishment under the supervision of the Ministry of Education. Like the KATEEs, the institutional development of SELETE has been facilitated by means of assistance from international organizations, including OECD. In many respects it is a unique establishment and worthy of some additional comment. SELETE consists of three technical education branches :

a) the Pedagogical Technical School (PATES) for graduates of secondary, higher and highest institutions,
b) the Higher Technical School of Educational Technologists (ASETEM), and

c) five model schools (one technical lyceum, one vocational lyceum and three technical schools). The course of studies varies according to the branch : six months for the graduates of highest and one year for those of higher institutions, and 4 years for ASETEM.

In addition to special admission examinations for the several branches, all students are subjected to psychological tests carried out through personal interviews.

The programme of studies in PATES and ASETEM includes the following categories of subjects and activities :

a) theoretical-philosophical (e.g., philosophy of education, sociology, Greek economy, etc.),
b) psychological (e.g., general psychology, industrial psychology, guidance, etc.),
c) general and special methods of teaching and school organization,
d) general education (e.g., English, Greek, mathematics, etc.),
e) technological and scientific subjects, and
f) practical training in schools.

In 1978, there were 2,840 students enrolled in all branches of SELETE, distributed as follows : 481 in PATES, 973 in ASETEM and 1,386 in the model schools.

4. PRIVATE EDUCATION

Parallel to the state system of education there is a network of private schools, institutes, colleges and the like of all levels and types, except university-level institutions. The establishment of private universities is proscribed by the Greek Constitution.

Private general schools are set up, supported and administered by individuals. However, they come under the jurisdiction of the Ministry of Education which supervises them through its district supervisory personnel. Furthermore, in their organization, curriculum, conduct of examinations, policies of promotion from class to class and graduation, and qualifications of teachers, private schools abide by the same rules and regulations as the state-controlled counterparts. The legal and institutional framework as well as the overall status of private schools in the Greek education system has been a special policy concern of the present government. An important measure toward the updating of the laws and regulations affecting this type of education is Law 682 which was enacted in 1977.

Private general education is concentrated mainly in the two metropolitan regions of Athens and Salonica (See Chapter 2, sections 2.2.3 and 2.2.4). Enrolments in private primary schools, as a proportion of total enrolments, fell somewhat during the period 1960-77 and stood at 8 per cent in 1976-77. In Athens, however, they dropped sharply from about 29 per cent in 1960-61 to 19 per cent in 1976-77. At the secondary level, they have remained fairly constant since 1965-66, and they stood at about 12 per cent in 1976-77.

Private schools charge fees, some quite high, while the quality of education they offer has not been carefully assessed. Compared to state schools, private gymnasia have shown lower success rates in the public lyceum examinations, but higher in the first panhellenic examinations which were held this year.

5. FLOW OF STUDENTS AND EDUCATIONAL OPPORTUNITIES

A detailed quantitative analysis of enrolments over time in the various levels and types of education are presented in Chapter 2.2. Here it would suffice to point to some general trends in order to supplement the descriptive analysis above.

5.1. In the last couple of decades there has been a significant increase in the social demand for education, especially at the secondary general and the university levels. To illustrate with some gross figures :

a) During the period 1957-1976, secondary general education increased by 196 per cent ;
b) During the period 1969-1976, secondary technical/vocational education grew by 71 per cent ;
c) In "highest" education (universities) there was a rise in enrolments of 436 per cent from 1957 to 1976 ;
d) Tertiary technical/vocational education grew by 148 per cent in the period 1966-1975.

There were several factors that contributed to such an expansion. Among them, it can be safely assumed, were the general rise in the educational and living standards of the population, the traditional value which Greeks have attached to education, and the reform efforts for the expansion of education.

5.2. A schematic picture of the flow of students at all levels of the education system is presented in Figures C and D for the years 1962-63 and 1972-73 respectively. There is an obvious difference in the two educational pyramids ; the shape of the pyramid is wider in 1972-73 for the school years corresponding to secondary and tertiary education.

Despite the general growth of the educational enterprise, it is quite clear that there was a gradual decrease in enrolments as one moved up the educational ladder, which becomes quite marked at the tertiary level.

The progressive selectivity in the Greek system may be gauged from the percentages of students who managed to move upwards from primary schools to universities. Thus, for example, taking as the base the cohort of students who entered primary schools in 1960-61, it was estimated that :

a) - Of 100 students who entered the first grade :
   - 95 finished primary school (six grades) ;
   - 63 entered the seventh grade (the first class of the six-year gymnasium) ;
   - 32-33 finished the gymnasium (grade 12) ;
   - 11 were admitted into the universities.
b) The proportion of primary school leavers who entered the gymnasium was 62 per cent.
c) Of those who entered the gymnasium, approximately 55 per cent graduated.
d) 35 per cent of gymnasium graduates were admitted into tertiary institutions.

The general conclusion from the above estimates is that a large degree of selection in the Greek education system took place before the student finished the six-year gymnasium. Many entered, but fewer finished. If, however, they reached the end of the secondary general level, the opportunities to continue were greater. (For the structure and size of the educational enterprise in 1973-74, see Diagram 1, p. 39).

Variations in opportunity existed in different geographic regions of the country. As is the case in other sectors, a higher percentage of students from urban centres, especially from the Athens area, were able to continue their education from primary school to the university. Children from Thrace and the Ionian Islands had less opportunity. (For quantitative data on opportunity indices, see Chapter 2.4, pp. 119 ff.).

5.3. The iron law of educational selection

Selection, as is well known, is influenced by socio-economic factors, the cultural environment of the individual, peer groups, etc. In Greece, all students who succeed in the examinations have the legal right to all levels of education. That is, the basic

criterion for participation in the system is achievement, not ascription. With the expansion of compulsory education, selection on the basis of demonstrated achievement will commence after the three-year gymnasium, i.e. after the age of 15. Hence it could be argued that there are no social imparities for purposes of admission into the post-compulsory levels of the system. Yet the Greek system, like all education systems, is not immune to what has come to be referred to as the "iron law of educational selection". Stated rather generally, this has meant that children whose parents belonged to the upper occupational groups, who earned high incomes and who had high levels of education, had comparatively higher levels of achievement than lower socio-economic groups, were proportionally more successful in the examinations and consequently were over-represented in the upper levels of the system*.

One of the expected consequences of the recent reforms is the democratization of the system in the structure of opportunities through the extension of compulsory education, changes in the organization of the curriculum and post-compulsory schooling, and a meritocratic pattern of selection. Before the raising of the school-leaving age (ROSLA) the following social discrepancies were evident :

- 65,000 children between the ages of 11 and 14 were at work (employed), despite the existence of legislation that forbade child labour before the age of 14 ; 57 per cent of these children were from rural areas.
- About 34,000 primary school graduates entered the labour market and 22,000 lower vocational schools.
- Of those students in the sixth grade (last class of the primary school) who did not want to continue their education in the gymnasium, the vast majority belonged to rural families.**

Assuming that more schooling confers individual and social benefits, when ROSLA is fully implemented, children who have hitherto been at a disadvantage, especially rural children, will enhance their chances for continuing their education and ultimately for a more rewarding life. A more detailed assessment of the likely social effects of ROSLA is made later in this report. (See Part Three, Chapter 3.2, pp. 153-162).

Another reform measure that is anticipated to have beneficial effects on the opportunity structure is the system of electives in the lyceum. This innovation, which is more fully discussed in Chapter 3.2, pp. 150-151, provides the same two options for all lyceum students in the country. This was not the case before. Hence students in smaller lycea will no longer be short-changed. Furthermore, the system of electives in both general and technical lycea will lessen the significance of "frontisteria" (the private cram schools) which were a financial burden to parents particularly from the provinces.

Still another change which is expected to affect the structure of opportunities is the new system of admission into AEIs, which has supplanted the previous general entrance examinations. The new panhellenic examinations in the elective subjects, plus composition (see Chapter 3.2, pp. 150-151), at the end of the second and third classes of the lyceum will be on the material actually taught at school, not on what had been a priori specified that should be taught, and will provide a wider base for assessing one's achievement. They will thus be more efficient in selecting the meritorious from all walks of life and regions.

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* See also G. Psacharopoulos and A. Kazamias, Post-Secondary Education Development Study, unpublished report, Athens 1978, pp. 175 ff. and Appendix D, (in Greek).

** See Th. Tassios, A. Kazamias and A. Paterakis, Nine-Year Compulsory Education, Scientific Publications, National Technical University, Athens, 1976, and E. Panayiotou, Individual Demand for Education in the Gymnasium, Athens : Ministry of National Education and Religions, May 1978 (in Greek).

Figure C

EDUCATIONAL PYRAMID OF THE FLOW OF STUDENTS, FOR THE YEAR 1962-1963

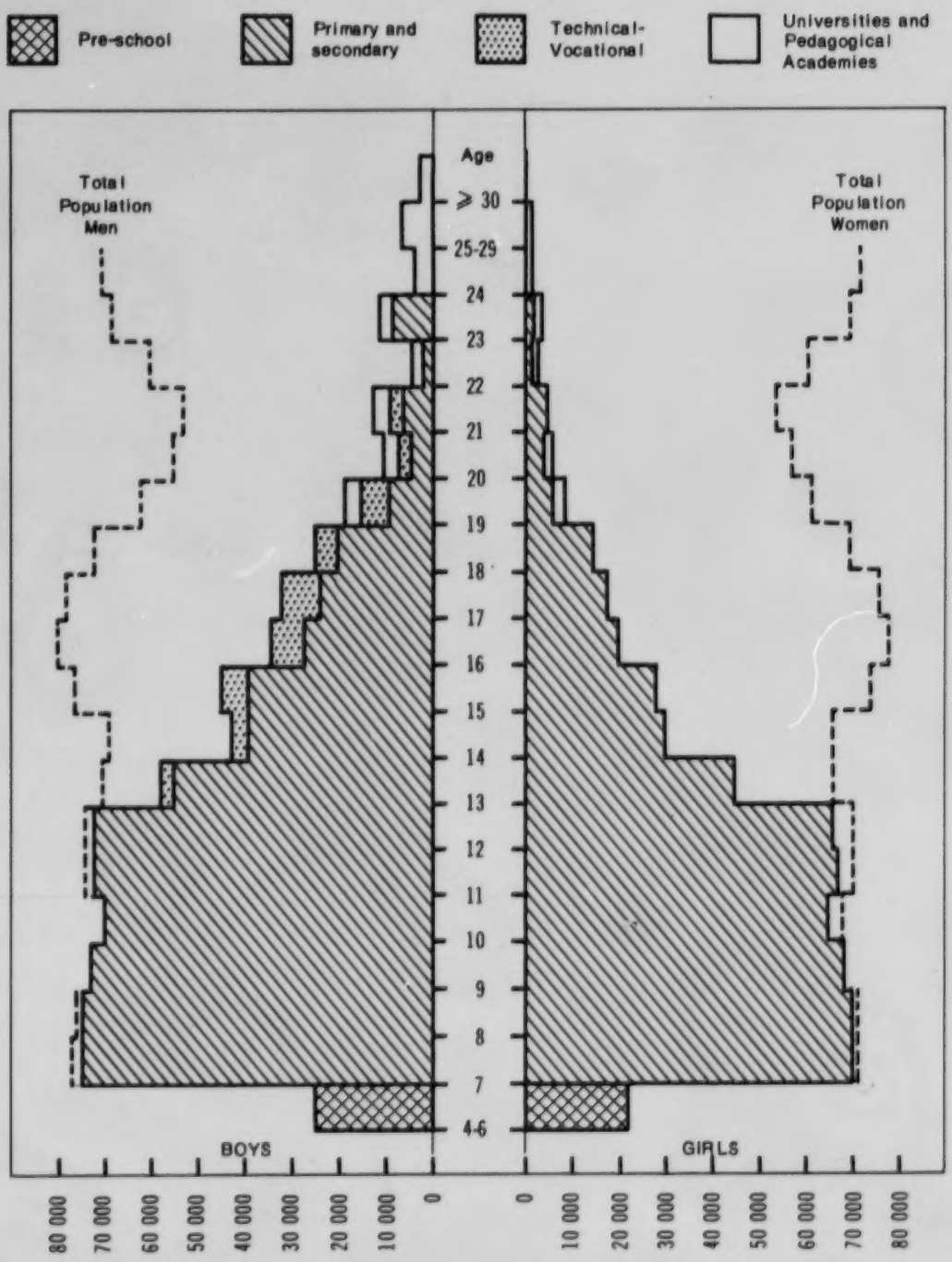


Figure D

EDUCATIONAL PYRAMID OF THE FLOW OF STUDENTS, FOR THE YEAR 1972-1973

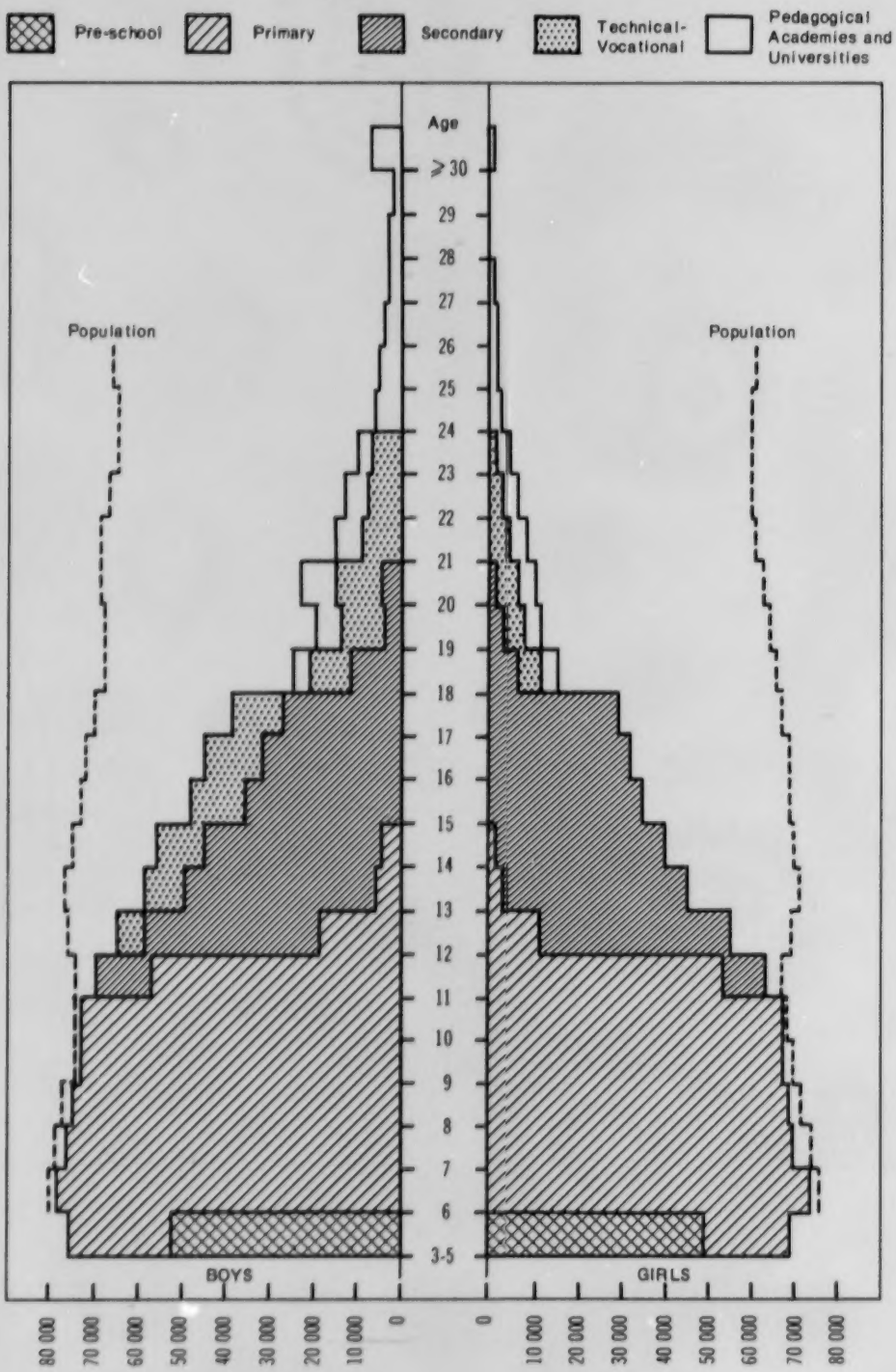
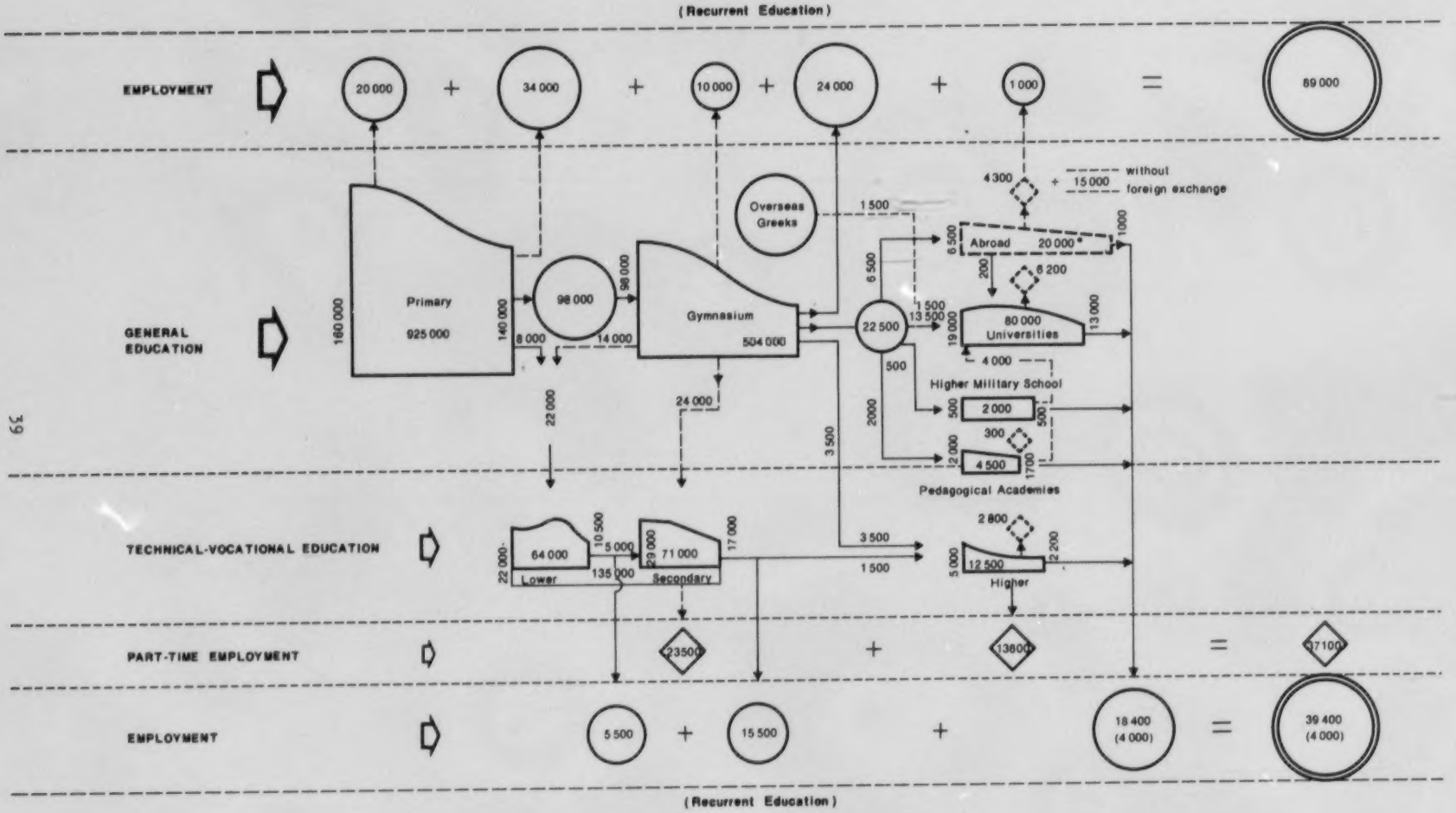


Diagram 1

STRUCTURE AND SIZE OF THE EDUCATIONAL ENTERPRISE, 1973-1974



* Plus approximately 15 000 students who do not formally receive foreign exchange.

Finally, it is expected that the new post-compulsory education arrangements (the bifurcation into general and technical lycea and the technical/vocational schools) will result in a more balanced distribution in the flow of students in the different types of education, and it will increase the employment opportunities of secondary school graduates.

To a degree more or less, the iron law of educational selection holds true in most countries of the world, especially as it pertains to access into the universities. This has been repeatedly brought out by international organizations like UNESCO and OECD, and by general individual researchers.* Greece is no exception. Certain occupational groups, e.g., administrative and managerial and free professional, are over-represented in the universities compared to others, e.g., farmers and workers, who are under-represented. If we classified occupations into three categories, e.g., (a) farmers, workers and people in the services, (b) free professionals and office workers, and (c) administrators and managers, the relative chances of participation of these groups in higher education would be about 1:3:5. Yet it is relevant to point out that 55 per cent of university students in Greece come from lower occupational groups, e.g., farmers, workers and service people.** And, according to OECD sources, Greece seems to be better off in the relative representation of occupational categories A (free professions, managerial, administrative) and E (manual occupations) than France, Germany, Italy, Holland and Spain.***

6. EDUCATIONAL EXPENDITURES

Expenditures on education in comparison to those on the other sectors of the economy indicate the State's intentions and priorities regarding the allocation of available funds. Also, the disaggregation of a given education budget by level of schooling shows the relative priorities the State attaches to the different levels of education.

It is well to remember that the criteria for judging the allocation effects of an educational budget are not easy to specify. Many other sectors compete for a limited amount of funds and the legislator has to strike a dividing line somewhere. But viewed ex post, a change over time in the allocation of funds to education versus other sectors of the economy can reveal a trend in the State's intentions and can be evaluated by external technocratic criteria.

Another point to bear in mind is that education budget data cover only a small part of the true cost of education. In the first place, there are many hidden costs which do not appear in the budget because of state-owned schools. Second, the private expenditure on education - which is substantial in every country of the world - does not appear either. Third, the major part of the time social cost of education - the foregone earnings of students while at school - has to be assessed by alternative methods (e.g. by an employee earnings survey). On the other hand, the current expenditure part of the state budget is a unique source of information on the amount of money required to keep the schools running, not to mention the quality of instruction they provide. And the capital account part of the budget shows the extra effort put in by the State to expand the physical capital formation in the school sector of the economy.

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* See, for example, Education, Inequality and Life Chances, Vol. I, OECD, Paris, 1975, and Charles Hummel, Education Today for the World of Tomorrow, UNESCO, 1977.

** See G. Psacharopoulos and A. Kazamias, op. cit., Appendix D.

*** See Education, Inequality and Life Chances, Vol. I, op. cit., p. 168.

6.1. The Trend in the Allocation to Education of the Total Budget

Table 2.3 shows the share of the public budget that was allocated to education for the years 1961-1979. Two points are worth noting here : the absolute size of the share and the trend over time.

Viewed comparatively, the absolute size of the educational share of the Greek budget is on the "low" side (in other Western European countries it is in the order of 20 per cent).

Table 2.3

TOTAL PUBLIC RECURRENT EXPENDITURE ON EDUCATION
AS A PERCENTAGE OF THE TOTAL STATE BUDGET, 1961-1979

Year	Education share (percentage)
1961	7.5
1962	13.4
1963	7.1
1964	8.5
1965	8.6
1966	8.7
1967	8.7
1968	8.6
1969	7.9
1970	7.1
1971	7.4
1972	7.6
1973	8.2
1974	10.8
1975	7.9
1976	7.3
1977	8.0
1978	9.4
1979	10.7

Source : Based on the State Budget of the respective years.

However, the international comparative logic has recently lost ground.

Different countries may have different priorities for public spending ; and one must remember that other sectors of the economy compete for the same funds.

Similar caveats apply to another, also widely-cited statistic, namely, the share of total national income allotted to education. This is shown in Table 2.4, calculated from National Accounts Statistics (which include private expenditure on education). The figure for Greece, which is of the order of 3 per cent, might again appear "low" by international standards (it is about double in other Western European Countries).

National Accounts data reveal a remarkable stability in educational expenditures throughout the sixties and up to the mid-seventies. The more recent budget data (Table 2.3), however, show a clear upward trend. The same clear upward trend in recent years is detected in the investment component of the state budget devoted to education (Table 2.5).

6.2. The Allocation within Education

A much better criterion for assessing an educational budget than the above is the internal allocation of funds to the different levels of education, each one of which has its own priorities relative to the rest. Table 2.6 shows the relative amount of funds devoted to primary, secondary, higher (i.e. non-university), and university education. It can be seen that the pattern over time is very mixed. There is a gradual decline in primary education as more funds are devoted to the post-compulsory levels. The share of

Table 2.4

THE EDUCATION SECTOR SHARE IN GROSS DOMESTIC PRODUCT, 1961-1977

Year	Education share (percentage)
1961	2.8
1962	2.9
1963	2.9
1964	2.9
1965	2.8
1966	2.7
1967	2.9
1968	2.8
1969	2.6
1970	2.7
1971	2.8
1972	2.7
1973	2.5
1974	2.8
1975	2.9
1976	2.9
1977	3.2

Source : Ministry of Coordination, National Accounts Statistics of the respective years.

Table 2.5

THE INVESTMENT SHARE OF EDUCATION IN THE STATE BUDGET, 1961-1979

Year	Education share (percentage)
1961	2.4
1962	3.1
1963	8.5
1964	7.1
1965	6.9
1966	3.8
1967	4.6
1968	5.2
1969	5.4
1970	7.8
1971	6.4
1972	5.1
1973	6.6
1974	8.2
1975	6.4
1976	6.3
1977	10.3
1978	14.7
1979	14.2

Source : Based on the State Budget of the respective years.

secondary education has increased steadily in the period 1961-1979, and currently amounts to one third of the total budget. The relative amount of resources devoted to higher education has nearly tripled during the seventies, reflecting the emphasis put on technical education and especially on the KATEEs. Finally, the share of higher education reached its peak in 1977 and shows an apparent decline thereafter.

Whether this trend in the allocation of funds is in the "right" direction is a matter of a finer breakdown of where the resources are or will be devoted. As discussed earlier, the current policy emphasis is on :

a) the expansion of compulsory schooling by 3 years ;

b) the strengthening of the technical upper secondary stream ;

c) the expansion of post-secondary technical schools, and

d) the implicit levelling off of the university sector.

Policy (a) appears to be in the right direction according to the welfare criteria employed in this report.

Table 2.6

ALLOCATION OF FUNDS WITHIN EDUCATION, 1961-1979

(percentage)

Year	University	Higher	Secondary	Primary
1961	6.8	n.a.	21.7	71.5
1962	7.0		22.9	70.1
1963	7.9		23.6	68.5
1964	12.7		23.7	63.6
1965	13.2		25.3	61.5
1966	15.6		25.4	59.0
1967	14.2		27.3	58.5
1968	13.9		28.3	57.8
1969	14.0		28.5	57.5
1970	14.7		27.7	57.6
1971	14.3	1.0	25.7	59.0
1972	12.8	1.6	28.1	57.5
1973	14.8	1.9	27.3	56.0
1974	19.5	1.8	26.7	52.0
1975	22.1	2.8	27.7	47.4
1976	22.8	3.7	25.9	47.6
1977	23.4	3.3	28.3	45.0
1978	20.6	3.9	36.0	39.5
1979	16.9	3.3	36.1	43.7

Source : Based on the State Budget of the respective years.

Part Two

QUANTITATIVE INFORMATION ON THE GREEK EDUCATION SYSTEM

Chapter 2.1.

SOCIO-ECONOMIC CHARACTERISTICS OF GREEK SOCIETY

Educational reforms are the most important factors that influence the structure of an education system. At the same time, educational policy and, of course, resultant reform policies are, in turn, influenced by existing conditions in a given society.

Some basic geographic, economic and demographic characteristics of Greece are important when examining the evolution of its education system. In the last twenty years, the country has experienced rapid change, part of which has been considerable economic growth. This phenomenon has been accompanied by increased differentiation between urban and rural areas on the one hand, and developed and under-developed regions on the other.

2.1.1. Population Structure

Geographically, Greece consists of two sharply differentiated areas : the mainland and the islands. Each of these areas has its own individual features, e.g., the dispersion of the islands, which are quite isolated from each other, or the division of the mainland by the Pindos range. The historical evolution of the Greek State and the continuous addition of new population have created the preconditions for the over-expansion of the capital city at the expense of other regions. Migration abroad and a strong urbanization movement, mainly towards the Athens region, have greatly influenced the distribution and structure of the population.

According to the 1961 census, 43.8 per cent of the population lived in rural areas[1], 12.9 per cent lived in small towns (semi-urban)[2] and 43.3 per cent lived in large urban centres[3]. By 1971 the situation changed due to rural migration towards the urban centres. The urbanization process started in the 1940s, and was intensified in the decade 1961-1971, as shown in Table 2.1.

This shift of the population distribution from rural to urban areas was accompanied (a) by a shift in the distribution of the economically active population in the major sectors of the economy (Table 2.2), (b) by an increase in the participation of women in the labour force (Table 2.3), and (c) by a decrease in the proportion of the economically active population in the urban, semi-urban and rural areas (Table 2.4).

The reader should keep in mind one important fact, namely, the relative quantitative stability of the total population. (Table 2.5 defines the demographic structure of the country). On the other hand, an important feature in the changing structure of the population is the shift from rural to urban areas with concentration in the Athens region (Tables 2.6, 2.7). This shift is related to the increasing pressure for secondary education and the rising demand for higher education, as will be shown in the following sections.

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1) Rural communities : population less than 3,000 inhabitants
2) Semi-urban : population 3,000 inhabitants and over
3) Urban centres : population 10,000 inhabitants and over.

Table 2.1.

DISTRIBUTION OF POPULATION IN GREECE 1920-1971

Year	Percentage distribution		
	Urban	Semi-urban	Rural
1920	22.9	15.2	62.0
1928	31.1	14.5	54.4
1940	32.8	14.8	52.4
1951	37.7	14.8	47.5
1961	43.3	12.9	43.8
1971	53.2	11.6	35.1

Source : N.S.S.G., Statistical Yearbook of Greece, 1974

Table 2.2.

DISTRIBUTION OF THE ECONOMICALLY ACTIVE POPULATION
IN THE MAJOR SECTORS OF THE ECONOMY, 1961, 1971

Economic sector	Economically Active Population					
	1961			1971		
Agriculture and Forestry	1,960,446	53.9		1,330,320	40.5	
Mining	21,510	0.6		20,980	0.6	
Manufacturing and Industry	488,577	13.4		539,880	16.4	
Public Works	167,364	4.6	19.2	255,020	7.8	25.5
Electricity, Gas, Water supply	19,804	0.6		24,960	0.7	
Commerce and Tourism	266,070	7.3		350,420	10.7	
Transport and Communications	153,867	4.2	23.6	213,140	6.5	32.1
Services	439,471	12.1		487,360	14.9	
Not specified	121,492	3.3		61,800	1.9	
Total	3,638,601	100.0		3,283,800	100.0	

Sources : N.S.S.G., Population Census 1961
Population Census 1971

Table 2.3.

DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION
IN THE MAJOR SECTORS OF THE ECONOMY AND PERCENTAGE OF WOMEN, 1961, 1971

Sector of the Economy	Percentage Distribution			
	1961		1971	
	Total	of which women	Total	of which women
Primary (agricultural sector, etc.)	53.9	65.5	40.5	52.8
Secondary (mining, quarrying, industry, construction)	19.2	13.2	25.5	16.9
Tertiary (services, transport and communication)	3.6	16.6	32.1	26.0
not specified	3.3		1.9	
Total	100.0		100.0	

Sources : N.S.S.G., 1) Statistical Yearbook of Greece, 1968, p. 120
2) Statistical Yearbook of Greece, 1974, p. 82

Table 2.4.

PERCENTAGE OF ECONOMICALLY ACTIVE POPULATION BY URBAN,
SEMI-URBAN AND RURAL AREAS AND BY SEX, 1961, 1971

Geographic Area	Percentage economically active in total population			
	1961		1971	
	Both sexes	Women	Both sexes	Women
Urban	45.2	21.4	40.8	18.1
Semi-Urban	53.8	31.7	45.6	21.6
Rural	63.3	46.7	53.6	34.7
Total	54.0	33.5	45.8	24.3

Sources : N.S.S.G., 1) Statistical Yearbook of Greece, 1968, pp. 116,117
2) Statistical Yearbook of Greece, 1976, pp. 79, 80

Table 2.5.

POPULATION OF GREECE BY SEX

Census Years	Population			
	Total	Increase from previous census years %	Men %	Women %
1940	7,344,860		50	50
1951	7,632,801	+ 3.9	49	51
1961	8,388,553	+ 9.9	49	51
1971	8,768,640	+ 4.5	49	51

Source : N.S.S.G., Statistical Yearbook of Greece, 1974.

Table 2.6.

CHANGES IN THE DISTRIBUTION OF POPULATION
BY AREA 1940 - 1971

Year	Population					
	Urban	% of total	Semi-urban	% of total	Rural	% of total
1940	2,411,647	32.8	1,086,079	14.8	3,897,134	52.4
1951	2,879,994	37.7	1,130,188	14.8	3,622,619	47.5
1961	3,628,105	43.3	1,085,856	12.9	3,674,592	43.8
1971	4,667,489	53.2	1,019,421	11.7	3,081,731	35.1

Source : N.S.S.G., Statistical Yearbook of Greece, 1974

Table 2.7.

CHANGES IN THE DISTRIBUTION OF POPULATION BY REGION 1951-1971

Region	Population			Average annual rate of change %	
	1951	1961	1971	1951-61	1961-71
Greater Athens	1,378,586	1,852,709	2,540,232	3.0	3.2
Rest of Central Greece & Euboea	908,433	970,949	992,040	0.7	0.2
Peloponnesos	1,129,022	1,096,390	986,872	0.3	- 1.0
Ionian Islands	228,597	212,573	184,448	0.8	- 1.4
Epirus	330,543	352,604	310,308	0.6	- 1.3
Thessaly	624,342	695,385	659,884	1.1	- .5
Macedonia	1,705,434	1,890,654	1,890,632	1.0	0.0
Thrace	359,923	356,555	329,560	-.2	- .8
Aegean Islands	548,380	477,476	417,776	1.4	- 1.3
Crete	438,239	483,258	456,620	1.0	- .6
Total	7,632,801	8,388,553	8,768,372	0.9	0.4

Sources : N.S.S.G., Population Census : a) 1961, vol. I, page 58
b) 1971, vol. II, page 1.

2.1.2. Economic Growth

As far as GNI is concerned, a large increase took place in the period 1955-1978. In 1955, GNI in current prices was 65,450 million drs., representing a per capita income of 8,216 drs. or $ 274. By 1978, the GNI had increased to 1,037,850 million drs., reflecting an annual rate of increase of approximately 10.4 per cent. Accordingly the per capita income had more than tripled, to 110,992 drs. or $ 3,016 (current prices) (See Table 2.8).

2.1.3. Participation in Education

Participation in education also increased dramatically during the last two decades. Greece is the country par excellence where changes in enrolments can be attributed mainly to all other factors except demographic changes. The level of education of the population has been improving steadily in both absolute and relative terms. More specifically :

a) Illiterates : There has been a considerable decrease in the illiteracy rate which is amplified when we consider the fact that 95 per cent of the illiterate population is over 30 years of age, 76 per cent is over 45 years of age, and 38 per cent is over 65.

b) Primary school certificate holders constitute the largest proportion of the population from 1950 and on. It is the section of the educated population which grew faster in the decade 1951-1961.

c) Secondary school :In the decade 1961-1971 participation in secondary education increased considerably.

d) Higher education : The increase in that level of education is the highest in the decade 1961-1971, when participation in higher education almost doubled.

e) Women : The increase in women's participation in education has been higher than in men's, especially in secondary and higher education, where it has more than doubled.

More specifically on the issue of the reduction of illiteracy : Between 1960 and 1970 the absolute figure of illiteracy dropped by almost 20 per cent and this percentage was evenly distributed in the male and female population of the country. Since there have been no systematic illiteracy programmes in the country, this change can be attributed to the increasing participation of youngsters in primary education and to the natural decrease of the older generation which traditionally has had the highest illiteracy rates. Now if we consider the illiteracy rates by age group and sex, two things become very obvious : a) illiterates are primarily women ; and b) illiterates are mostly the old (Table 2.9). Specifically, 14.24 per cent of the 1971 total population were illiterates. If examined separately by sex, 21.67 per cent of the women and 6.31 per cent of the men were illiterates. In the younger age groups the illiteracy rates are less than 2 per cent and they gradually increase to 40 per cent for the population over 65 years old. In 1971, 60 per cent of the women over 65 years were illiterates, and only 17.46 of the men.

Women over 65 years old form the largest proportion of illiterates (31.7 per cent). Illiterate women in the 45-64 age group represent 29.88 per cent of the total illiterate population or a percentage of 14.01 of the respective age group. From the past literacy trends we can reasonably anticipate that by 1990 (that is approximately 20 years from 1971) most of the illiterates will be concentrated in the "65 and over" age group and will be approximately 15 per cent of that population. The decrease of illiterates indicates one aspect of the upgrading of the educational level of the population which has taken place in the last two decades. More specifically, graduates of higher education have increased at an average annual rate of 5.3 per cent. This has occurred mainly in the urban areas with the semi-urban following, and has affected women more than men (Tables 2.10, 2.11). Graduates of secondary education have increased at an average annual rate of 43 per cent which primarily occurred in the urban areas and affected women more than men (Tables 2.10, 2.11).

Overall the average years of schooling have increased more than 10 per cent for all regions and both sexes (Table 2.12). The average years of schooling for women has increased by 20 per cent in the decade between the last two censuses, while the average years of schooling in the rural areas has increased by 10 per cent. The higher average years of schooling in 1971 are those of the urban population (6.79) and of men (6.45), while the lower years of schooling are those of the rural (4.21) and of women (4.99).

Changes in the educational level of the population have affected the educational level of the economically active population. University graduates in the economically active population have had the largest increase among all levels of education, the average annual rate being 4.3 between 1961 and 1971. Still university graduates constituted only 5 per cent of the economically active population in 1971 (Table 2.13). The largest section of

the economically active population was primary school graduates (53.3 per cent) while secondary education graduates formed only 11.4 per cent of the active population in 1971.

A more detailed analysis by occupation and educational level shows that primary school graduates formed the larger proportion of farmers, workers, workers in services, and those occupied in commercial activities. Graduates of higher institutions constituted the larger proportion of professional, technical, administrative and managerial occupations, while secondary school graduates formed the larger proportion of clerical and office workers (Table 2.14).

Table 2.8

POPULATION, GROSS NATIONAL INCOME AND PER CAPITA INCOME 1955-1978

Year	Population	Gross National Income in million drachmas current prices	Per capita income current prices		Percentage (annual) increase	Gross National Income in million drachmas constant prices 1970	Per capita income constant prices 1970	
			in drachmas	in $			in drachmas	in $
1955	7,965,538	65,450	8,216	274	-	-	-	-
1960	8,327,405					131,272	15,764	525
1965	8,550,333	161,586	18,898	630	-			
1966	8,613,651	178,708	20,747	692	9.8			
1967	8,716,441	192,731	22,111	737	6.5			
1968	8,740,765	207,674	23,759	792	7.4			
1969	8,772,764	234,027	26,676	889	12.2			
1970	8,792,806	263,503	29,968	999	12.4	263,503	29,968	999
1971	8,831,036	295,299	33,439	1,115	11.6			
1972	8,888,628	339,554	38,201	1,273	14.2			
1973	8,929,086	441,301	49,423	1,669	31.1			
1974	8,962,023	530,081	59,148	1,972	18.2			
1975	9,045,952	614,383	67,918	2,122	7.6			
1976	9,135,887	732,150	80,140	2,196	3.5			
1977	9,268,000	871,193	94,602	2,564	16.8	381,128	41,123	1,371
1978	9,350,000	1,037,850	110,992	3,016	17.6	402,246	43,021	1,434

Sources : Income data from Ministry of Coordination National Accounts of Greece
Population data from N.S.S.G., Statistical Yearbook of Greece

Table 2.9

ILLITERACY RATES OF THE POPULATION OVER 10 YEARS OLD, BY SEX, 1971

Age group		(a) Illiterates Total Men Women	%	(b) Population Total Men Women	%	Illiteracy Rate Total Men Women *	% **
(Total pop. over 10 years old)	Total	1,040,000		7,302,560		14.24	100.00
	Men	222,700		3,531,160		6.31	21.40
	Women	817,300	(78.59)	3,771,400	(51.64)	21.67	78.60
10 - 14	Total	9,960		714,140		1.39	0.96
	Men	5,220		367,760		1.42	0.50
	Women	4,740	(47.59)	346.380	(48.50)	1.37	0.46
15 - 19	Total	11,680		658,480		1.77	1.12
	Men	5,560		335,960		1.65	0.53
	Women	6,120	(52.39)	322,520	(48.98)	1.90	0.59
20 - 24	Total	13,300		632,620		2.10	1.28
	Men	5,620		327,300		1.72	0.54
	Women	7,680	(57.74)	305,320	(48.26)	2.51	0.74
25 - 29	Total	18,320		501,440		3.65	1.76
	Men	5,680		243,840		2.33	0.54
	Women	12,640	(69.00)	257,600	(51.37)	4.91	1.22
30 - 44	Total	193,000		1,918,420		10.06	18.56
	Men	47,320		920,800		5.14	4.55
	Women	145,680	(75.48)	997,620	(52.00)	14.60	14.01
45 - 64	Total	389,380		1,899,760		20.50	37.44
	Men	78,600		907,560		8.66	7.56
	Women	310,780	(79.81)	992,200	(52.23)	31.32	29.88
over 65	Total	404,360		977,700		41.36	38.88
	Men	74,700		427,940		17.46	7.18
	Women	329,660	(81.52)	549,760	(56.23)	59.96	31.70

Notes : * Percentage of the relevant age group (a over b)
** Percentage of the total illiterate population

Source : Calculated from data in the Statistical Yearbook, 1974, p. 120

Table 2.10

CHANGES IN THE EDUCATIONAL LEVEL OF THE POPULATION
OVER 10 YEARS OLD, 1961, 1971

Educational level	1961	%	1971	%	Average annual rate of increase
University Graduates	124,068	1.8	210,104	2.9	5.3
Secondary School Graduates	522,382	7.6	800,920	11.0	4.3
Primary School Graduates	2,981,598	43.3	3,594,648	49.4	1.9
Have not finished primary school (*)	2,026,953	29.5	1,648,348	22.7	- 2.1
Illiterates	1,222,481	17.8	1,015,180	14.0	- 1.9
Total	6,877,482	100	7,269,200	100	

Note : (*) Includes the "not classified elsewhere" category.

Sources: N.S.S.G., Statistical Yearbook of Greece, 1969, page 87,
Population Census, 1971, Vol. II, page 330.

Table 2.11

DISTRIBUTION OF POPULATION BY EDUCATIONAL LEVEL, SEX AND REGION, 1961-1971

	Total	Full Higher	Part Higher	Full Secondary	Part Secondary	Full Primary	Part Primary	Illiterates
1961								
Total	6,877,482	124,068	91,964*	430,418	558,367*	2,423,231	2,026,953	1,222,481
Men	3,314,185	95,988	63,579*	231,725	350,121*	1,338,023	983,276	251,473
Women	3,563,297	28,080	28,385*	198,693	208,246*	1,085,208	1,043,677	971,008
1971								
Total	7,269,200	210,104	117,332	683,588	562,828	3,031,820	1,648,348	1,015,180
Men	3,515,740	149,884	76,056	353,260	333,852	1,609,956	775,792	216,940
Women	3,753,460	60,220	41,276	330,328	228,976	1,421,864	872,556	798,240
1961								
Urban	3,082,994	96,151	84,475	355,437	373,988	1,065,438	743,416	364,089
Semi-Urban	889,474	10,564	3,091	33,696	64,280	322,288	291,040	164,515
Rural	2,905,014	17,353	4,398	41,285	120,099	1,035,505	992,497	693,877
1971								
Urban	3,925,664	172,828	109,280	591,124	397,796	1,588,332	714,656	351,648
Semi-Urban	835,776	15,664	3,548	43,852	60,328	367,364	215,512	129,508
Rural	2,507,760	21,612	4,504	48,612	104,704	1,076,124	718,180	534,024

Note : * Estimates based on the 1961 "full secondary" column and the 1971 proportion of secondary school graduates who have had some higher education.

Sources : N.S.S.G., Population Census 1961,
Population Census 1971.

Table 2.12

EDUCATION INDEX BY SEX AND REGION, 1961, 1971

Year		Total years of schooling	Population	Education index per person	
				Average years of schooling	increase %
1961	Total	34,083,148	6,877,482	4.96	
	Men	19,335,669	3,314,185	5.83	
	Women	14,747,479	3,563,297	4.14	
1971	Total	41,408,784	7,269,200	5.70	14.9
	Men	22,693,828	3,515,740	6.45	10.6
	Women	18,714,956	3,753,460	4.99	20.5
1961	Urban	18,975,078	3,082,994	6.15	
	Semi-urban	4,002,018	889,474	4.50	
	Rural	11,106,052	2,905,014	3.82	
1971	Urban	26,642,780	3,925,664	6.79	10.4
	Semi-urban	4,220,192	835,776	5.05	12.2
	Rural	10,545,812	2,507,760	4.21	10.2

Sources: N.S.S.G., Population Census 1961, Population Census 1971, Table 2.11.

Table 2.13

CHANGES IN THE EDUCATIONAL LEVEL OF THE ECONOMICALLY ACTIVE POPULATION, 1961, 1971

Educational Level	1961		1971		Average annual rate of increase
		%		%	
University graduates	104,500	2.9	160,920	4.9	4.3
Secondary school graduates	289,300	7.9	374,000	11.4	2.6
Primary school graduates	1,730,900	47.2	1,749,740	53.3	1.1
All the rest	1,538,400	42.0	999,220	30.4	- 4.3
Total*	3,663,100	100.0	3,283,880	100.0	- 1.1

Note : * The total of the economically active population is based on the 2 per cent sample of 1961 and 5 per cent of 1971.

Sources : N.S.S.O., Population Census 1961, Vol II., p. 29
Population Census 1971, Vol I., p. 22

Table 2.14

ECONOMICALLY ACTIVE POPULATION BY EDUCATIONAL LEVEL, AND ONE-DIGIT OCCUPATIONAL CODE 1961, 1971

Occupation \ Educational level		Higher education graduates	Secondary education graduates	Primary education graduates	Others	Total
Professional, technical and related	1961	72,000	28,300	20,400	6,500	127,200
	1971	111,300	37,860	28,920	8,140	186,220
Administrative, executive and managerial	1961	7,800	12,900	7,100	700	28,500
	1971	11,140	9,080	1,820	340	22,380
Clerical and related	1961	7,900	102,000	29,200	3,900	143,000
	1971	18,640	171,160	54,180	5,400	249,380
Tradesmen and related workers	1961	2,600	36,700	124,900	55,200	219,400
	1971	4,680	53,920	137,440	35,640	231,680
Farmers	1961	400	17,800	855,900	1,075,900	1,950,000
	1971	880	12,280	674,040	643,280	1,330,480
Craftsmen labourers and non-agricultural	1961	200	27,500	426,900	248,200	702,800
	1971	1,100	51,220	685,900	228,000	966,220
Services workers	1961	10,200	36,500	190,800	112,900	350,400
	1971	2,520	22,360	140,280	62,860	228,020
Not classified	1961	3,600	27,900	75,900	34,400	141,800
	1971	10,660	16,120	27,160	15,560	69,500
Total	1961	104,500	289,300	1,730,900	1,538,400	3,663,100
	1971	160,920	374,000	1,749,740	999,220	3,283,880

Sources: N.S.S.O., Population Census 1961, Vol II., p. 29-30
Population Census 1971, Vol I., p. 22

Chapter 2.2.

STUDENT ENROLMENTS

2.2.1. Trends at all educational levels

Student enrolments have increased rapidly at all educational levels since 1956 with the exception of primary education. At this level, enrolments have remained fairly constant. This is due to the fact that primary education is compulsory and tends to be universalized, and to the fairly stabilized demographic characteristics of the population.

In preschool education enrolments have increased constantly with two noticeable peaks : one in the mid-sixties and another more recent which occurred after the mid-seventies. During the 1956-78 period enrolments in preschool education increased by approximately 350 per cent (Table 2.15).

Enrolments have also increased in lower secondary education, with a higher rate in the early mid-sixties and of course more recently, right after the 1976 educational reform when lower secondary education became compulsory. Enrolments at this level increased by approximately 300 per cent between 1956 and 1978 (Table 2.15).

There have been less dramatic changes in upper secondary general education, although still considerable in magnitude. The two peaks in this case appear in the mid-sixties and in the seventies, the first of which can be associated with the prior expansion of lower secondary education. Enrolments in upper secondary general education increased by 180 per cent between 1956 and 1976, but have dropped by 11 per cent since then (Table 2.15). This is obviously a result of the implementation of the 1977 reform which was geared to the strengthening of technical education at this level.

Technical vocational education at all levels increased by 260 per cent between 1956 and 1977. The first considerable increase appeared in the late sixties and the next in the early seventies. Lately technical vocational education has been expanding systematically as a result mainly of two factors : (a) intensification of the production of the necessary physical infrastructure through the World Bank educational projects for technical vocational education* ; and (b) the institutional arrangements, based on Law 576/1977, by which more students are being allocated into secondary level technical and vocational schools. Recently there has been a remarkable growth in higher technical and vocational education. Especially sharp was the increase in 1975-76 when enrolments grew by 410 per cent as a result of the establishment of the Centres for Higher Technical Education (KATEEs) (Table 2.16).

University education has registered the greatest growth in enrolments. Between 1956 and 1978 the increase was almost 440 per cent which has meant an average annual growth rate of approximately 20 per cent. At this level, rapid changes occurred in the early sixties and the early seventies. Recently the rate of growth appears to have remained fairly constant (Table 2.15).

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* Since 1970 the World Bank has sponsored four educational projects focusing mainly on the building of an infrastructure for technical and vocational education.

The pattern that emerges from the above shows that the greatest expansion of the education system as a whole took place during the years 1960-1965 (Table 2.17). Primary, upper secondary, teacher training and university education have had the largest rate of growth in that period. By contrast the sharpest expansion of technical vocational education has occurred in recent years (Table 2.17).

The pattern of increase in teacher training institutions and universities in the first period, and technical vocational education recently is a direct result of governmental policies in these areas of the education system.

The distribution of students by educational level has changed considerably in the two decades between 1956 and 1976. At the beginning of that period enrolments in primary education constituted the great proportion of total student enrolments at all educational levels, amounting to 75.4 per cent (Table 2.18). By 1976, primary education was still the major part of the educational enterprise but its share in enrolments was considerably lower (it was 50.1 per cent of the total enrolments).

The percentage distribution of students in secondary general education increased from 17.1 per cent in 1956 gradually to 30 per cent in 1976, the greatest change having taken place in the decade of the sixties (Table 2.18). The proportion of technical vocational education increased from 3.6 to 8.3 per cent during the same period.

University education has had the largest percentage increase in the system ; student enrolments over the total student population increased from 1.4 in 1956 to 5.1 per cent in 1976, while enrolments in teacher training institutions remained fairly constant during the whole period (Table 2.18). In summary the overall distribution of students by educational level tends to be more "flat" at the end of the twenty-year period.

So far as women are concerned, the overall pattern of distribution by educational level follows the same pattern as that of the student population as a whole. Differences which can be identified are :

a) A small increase in the proportion of technical vocational education ;
b) A small increase in the proportion of enrolments in teacher training institutions, which meant that the share of men has decreased ;
c) A smaller (than the average/total) proportion in university enrolments, but a larger share in primary education (Table 2.19).

One characteristic of the Greek education system as noted elsewhere in this report, is the existence of private schools at the preschool, primary, secondary and technical vocational levels (teacher training colleges and universities are all public by law).

Private education enrolments have more or less followed the same pattern of expansion as the state schools since the mid-fifties. At the secondary school level, state schools have grown more rapidly so that the proportion of students enrolled in private secondary education dropped to 6 per cent of total enrolment in 1978 ; it was 13.6 per cent in 1956 (Table 2.20).

2.2.2. Preschool Education

Enrolments in preschool education were very low at the beginning of the period ; in 1960-61, they stood at 40,247, 47.7 per cent of which were girls (Table 2.21). The participation of girls was more or less evenly distributed among the country's regions, except for the Ionian Islands, where it dropped to 33.9 per cent. By 1970-71, enrolments had increased to 87,087, 48.5 per cent of which were girls (Table 2.21). The overall participation of girls increased slightly and ranged from 47.6 per cent in the Aegean Islands to 50.2 per cent in the north-east (Thrace) of the country. In 1976-77, total enrolment increased

Table 2.15

STUDENT ENROLMENT BY EDUCATIONAL LEVEL 1956-1978

Year*	Preschool	Primary	Secondary general			University
			Lower	Upper	Total	
1956	28,678	936,729	126,625	85,846	212,471	16,866
1957	29,910	971,878	143,293	82,720	226,078	17,954
1958	35,807	945,192	158,680	82,204	240,884	21,971
1959	38,845	927,331	171,134	88,046	259,180	23,953
1960	40,247	921,262	175,430	97,960	273,390	25,658
1961	43,910	927,853	178,563	112,966	291,529	28,042
1962	45,096	928,717	182,518	123,064	305,582	31,995
1963	50,266	924,701	187,993	125,576	313,574	39,824
1964	51,238	965,782	227,469	130,932	358,401	49,532
1965	52,253	975,869	238,182	136,434	374,616	54,261
1966	59,235	979,395	246,668	141,624	388,292	60,624
1967	64,015	968,727	247,954	157,993	405,947	68,236
1968	66,261	960,812	255,215	165,205	420,420	71,259
1969	82,884	948,097	263,499	172,995	436,494	72,616
1970	87,087	919,984	280,075	176,333	456,408	72,269
1971	91,178	910,728	291,816	185,929	477,745	70,161
1972	101,285	913,972	302,844	188,023	490,867	76,035
1973	108,358	921,126	300,382	203,646	504,028	80,041
1974	109,643	929,906	303,330	216,037	519,367	92,920
1975	104,327	932,896	316,606	235,088	551,694	95,392
1976	118,120	938,597	327,356	235,339	562,695	95,017
1977	122,638	931,860	352,454	238,782	581,236	96,650
1978	133,706	922,740	378,552	208,140	586,692	n.a.

Note : * It refers to the academic year which started the same year.

Sources :N.S.S.O., Statistics of Education of respective years ;
Ministry of Education : General Directorate of Planning and Operations Research provisional data of the Statistical Service of the Ministry of Education.

Table 2.16

STUDENTS BY EDUCATIONAL LEVEL

Year*	Technical Vocational Education			Teacher Training Colleges	All educational levels
	Lower	Middle	Higher		
1956	All Technical Vocational Educ.	43,943		2,625	1,242,229
1957				2,363	1,248,183
1958				2,366	1,246,220
1959				2,750	1,252,059
1960	"	"	54,389	2,644	1,317,590
1961				2,575	1,293,909
1962				3,437	1,314,827
1963				3,587	1,331,952
1964				3,773	1,428,726
1965	"	"	75,237	3,739	1,535,975
1966			5,840	3,967	1,491,513
1967			5,615	5,202	1,512,127
1968	43,945	35,088	6,355	3,637	1,610,232
1969	47,564	38,152	8,810	3,565	1,638,696
1970	52,176	46,125	9,324	3,929	1,647,556
1971	57,862	54,449	9,578	4,187	1,676,963
1972	61,192	61,889	10,653	4,279	1,720,514
1973	62,986	70,375	10,995	4,562	1,764,004
1974	62,967	71,150	12,528	4,839	1,804,483
1975	60,119	72,472	13,682	4,403	1,838,756
1976	54,122	77,399	17,453	3,541	1,873,720
1976-77	All Technical Vocational Educ.	155,750	24,229		
1977**	30,867	73,374	19,754		
1978**	25,503	80,524	21,617		

Notes : * It refers to the academic year which started the same year.
** It includes only schools under the auspices of the Ministry of Education.

Sources : N.S.S.G., Statistics of Education of respective years (1956-1975) ; Ministry of Education : General Directorate of Planning and Operations Research, provisional data of the Statistical Service of the Ministry of Education.

Table 2.17

CHANGES IN STUDENT ENROLMENTS 1956-1978

Educational Level	1956-57	1960-61	Change 1955-1960 %	1965-66	Change 1960-1965 %	1970-71	Change 1965-1970 %	1978-79	Change 1970-1978 %
Preschool	28,678	40,247	+ 40.34	52,253	+ 29.83	87,087	+ 66.66	133,706	+ 52.87
Primary	936,729	921,262	- 1.65	975,869	+ 5.92	919,984	- 5.73	922,740	
Lower Secondary	126,625	175,430	+ 38.54	238,182	+ 35.77	280,072	+ 17.59	378,552	+ 35.00
Upper Secondary	85,846	97,960	+ 14.11	136,434	+ 40.00	176,333	+ 28.00	208,140	+ 18.00
Tech+Voc lower						52,176		54,122*	+ 38.00
Tech+Voc middle	43,943	54,389	+ 23.77	75,237	+ 38.33	46,125	+ 42.66	77,938*	+ 68.97
Tech+Voc higher						9,578		16,800*	+ 75.40
Higher (teacher training)	2,625	2,644	+ 0.72	3,739	+ 41.41	3,929	+ 5.08	3,541*	- 9.88
University	17,783	25,658	+ 44.28	54,261	+111.48	72,269	+ 33.37	96,650	+ 32.50

Note : * 1976-77.

Sources : Based on N.S.S.O., Statistics of Education of respective years (1956-1971) ;
1976-1979 : Ministry of Education corresponding Divisions.

Table 2.18

STUDENT ENROLMENT BY EDUCATIONAL LEVEL, 1956-1977

Educational Level \ Year	1956-57	1960-61	1965-66	1970-71	1974-75	1976-77*
1. Preschool	28,678 (2.3)	40,247 (3.1)	52,253 (3.4)	87,087 (5.3)	109,643 (6.1)	118,120 (6.3)
2. Primary	936,729 (75.4)	921,262 (70.0)	975,869 (63.5)	919,984 (55.8)	929,906 (51.5)	938,597 (50.1)
3. Secondary	212,471 (17.1)	273,390 (20.7)	374,616 (24.4)	456,408 (27.7)	519,367 (28.8)	562,695 (30.0)
a) Lower cycle	126,625	175,430	238,182	280,075	303,648	327,356
b) Upper cycle	85,846	97,960	136,434	176,333	215,719	235,339
4. Technical/ Vocational	43,943 (3.6)	54,389 (4.1)	75,237 (4.9)	107,879 (6.6)	147,799 (8.2)	155,750 (8.3)
a) Lower	n.a.	n.a.	n.a.	52,176	62,967	54,122
b) Middle	n.a.	n.a.	n.a.	46,125	71,150	77,399
c) Higher	n.a.	n.a.	n.a.	9,578	13,682	24,229
5. Higher Education				(13,507)	(18,522)	(27,770)
a) Technical/ Vocational	n.a.	n.a.	n.a.	(9,578)	(13,682)	(24,299)
b) Higher General**	2,625 (0.2)	2,644 (0.2)	3,739 (0.3)	3,929 (0.2)	4,839 (0.3)	3,541** (0.2)
6. University Education	17,783 (1.4)	25,658 (1.9)	54,261 (3.5)	72,269 (4.4)	92,920 (5.1)	95,017 (5.1)
Total	1,242,229 (100.0)	1,317,590 (100.0)	1,535,975 (100.0)	1,647,556 (100.0)	1,804,474 (100.0)	1,873,720 (100.0)

Notes : * 1976-77 data provided by the Office of Statistics at the Ministry of Education
** 1976-77 data provided by the Division of Higher Education at the Ministry of Education.

Numbers in parenthesis are column percentages
n.a. not available

Sources : N.S.S.G., Statistics of Education of respective years.

Table 2.19

WOMEN ENROLMENT BY EDUCATIONAL LEVEL, 1956-1977

Educational Level \ Year	1956-57	1960-61	1965-66	1970-71	1974-75	1976-77
1. Preschool	13,622 (2.4)	19,194 (3.3)	26,192 (3.8)	42,239 (5.7)	53,311 (6.6)	57,365 (6.7)
2. Primary	446,390 (80.1)	439,230 (74.3)	466,378 (67.9)	439,315 (59.4)	446,610 (55.0)	452,284 (53.1)
3. Secondary	82,934 (14.9)	114,731 (19.4)	165,910 (24.2)	217,511 (29.4)	255,393 (31.4)	276,682 (32.5)
a) Lower cycle		72,186	104,572	132,006	146,249	158,358
b) Upper cycle		42,545	61,338	85,505	109,144	118,324
4. Technical/ Vocational	9,799 (1.8)	10,674 (1.8)	9,858 (1.4)	16,586 (2.2)	21,722 (2.6)	26,329 (3.1)
a) Lower	n.a.	n.a.	n.a.	2,728	2,923	2,506
b) Middle	n.a.	n.a.	n.a.	11,161	15,097	16,370
c) Higher	n.a.	n.a.	n.a.	2,697	3,702	7,453
5. Higher Education				(4,594)	(6,730)	(9,694)
a) Technical/ Vocational				(2,697)	(3,702)	(7,453)
b) Higher General	1,131 (0.2)	1,297 (0.2)	1,987 (0.3)	1,897 (0.3)	3,028 (0.4)	2,241 (0.3)
6. University Education	3,687 (0.6)	5,905 (1.0)	16,524 (2.4)	22,382 (3.0)	32,685 (4.0)	36,696 (4.3)
Total	557,563	591,031	686,849	739,930	812,749	851,597

Notes : Number in parenthesis are column percentages
n.a. = not available

Sources : N.S.S.G., Statistics of Education of respective years.

Table 2.20

STUDENT ENROLMENTS BY EDUCATIONAL LEVEL AND TYPE OF SCHOOL 1956-1978

Educational Level	Year					
	1956-57	1960-61	1965-66	1970-71	1974-75	1978-79
Preschool						
State	26,018	33,916	43,895	74,433	93,296	118,711
Private	2,660 (9%)	6,331	8,358	12,654	16,347	14,995 (11%)
Total	28,678	40,247	52,253	87,087	109,643	133,706
Primary						
State	884,021	856,512	911,768	852,613	855,785	859,604
Private	52,708 (6%)	64,750	64,101	67,371	74,121	63,136 (7%)
Total	936,729	921,262	975,869	919,984	929,906	922,740
Secondary						
State	183,580	227,146	326,983	396,980	454,805	550,424
Private	28,891 (13.6%)	46,244	47,633	59,428	64,562	36,268 (6%)
Total	212,471	273,390	374,616	456,408	519,367	586,692
Lower Tech./Voc						
State*	n.a.	n.a.	n.a.	*	36,595	
Private	n.a.	n.a.	n.a.		26,372	
Total	n.a.	n.a.	n.a.	52,176	62,967	54,122**
Middle TechVoc						
State*	n.a.	n.a.	n.a.	*	30,955	
Private	n.a.	n.a.	n.a.		40,155	
Total	n.a.	n.a.	n.a.	46,125	71,150	77,399**
Higher TechVoc						
State*	n.a.	n.a.	n.a.	*	8,625	
Private	n.a.	n.a.	n.a.		5,057	
Total	n.a.	n.a.	n.a.	9,578	13,682	24,229**
Teacher Training College						
State	2,625	2,644	3,739	3,929	4,839	3,541
Private	-	-	-	-	-	
Total	2,625	2,644	3,739	3,929	4,839	3,541
Universities						
State	17,783	25,658	54,261	72,269	92,920	96,650***
Private	-	-	-	-	-	-
Total	17,783	25,658	54,261	72,269	92,920	96,650

Notes : n.a. : not available
* : In 1970-71 and for all levels of Technical Vocational Education the number of students in state schools is : 40,319.
** : 1976-77
*** : 1977-78

Sources : N.S.S.G., Educational Statistics of respective years.
1976-77, 1977-78 : Provisional data of the Statistical Service, Ministry of Education.

to 118,120, the overall participation of girls remaining constant but more evenly distributed among the country's regions (Table 2.21).

The large proportion of pupils in preschool education is in state schools, with the exception of the Athens region. In Athens, private schools thrive although, over time, the percentage of children enrolled in them has decreased (Table 2.22). Enrolments in state institutions increased slightly between 1960 and 1976, but represented a considerably larger proportion of total enrolments than private schools. Especially in the regions of Epirus, Macedonia, Thrace and the Aegean Islands state schools enrolled more than 92 per cent of the pupils. On the contrary, in the Athens region and Peloponnesos, state schools enrolled 24.9 and 33.9 per cent of the total preschool education population respectively (Table 2.22). It is apparent that government policy responded to the demand, giving priority to the less privileged border regions.

Enrolments in preschool education increased between 1960-70 by 116 per cent for the whole country. For girls, however, enrolments increased slightly more, by 120 per cent (Table 2.23). This increase in enrolments was distributed unevenly between the country's regions, the increase ranging from 48 (Macedonia) to 495 per cent (Peloponnesos) ; Crete, Central Greece and Thessaly follow with very high percentage increases. Enrolment increases have favoured girls (Table 2.23). They also favour state schools in contrast to private schools. The highest increases in state schools occurred in Peloponnesos (from 33 to 90 per cent of the total preschool population between 1960 and 1970). In private schools they occurred in the Athens region which already had the largest share in private school enrolments (Tables 2.22, 2.23).

At the end of the period, and between 1970 and 1976, the change is less paramount (Table 2.23). Overall enrolments increased by 36 per cent ranging from 5 in Epirus to 97 per cent in the Ionian Islands. The increase in state and private schools is more equally distributed. The share of girls in this case is proportionally equal to the increase in boys (Table 2.23).

Although the number of students increased dramatically in the first period and much less in the second, the number of schools increased at high rates in both periods (Table 2.24). State schools predominate in all regions except Athens, where private schools are more numerous.

2.2.3. Primary Education

Enrolments at the compulsory level of schooling were constant throughout the period 1960-1977. In 1960-61, total enrolment was 921,262, 47.7 per cent of which were girls (Table 2.25). The participation of girls was evenly distributed among the country's regions, ranging from 47.1 in Thrace to 48.2 in Athens. Overall participation of girls increased only slightly (0.1 per cent), while at the regional level it dropped in Thessaly and increased in the Ionian Islands. All these changes, however, cannot be considered as significant. By 1976, the proportion of girls in the education system as a whole increased up to 48.3 per cent, ranging from 47.2 in Thrace to 48.4 in Athens. The increase is not significant, however. The participation of girls appears to be evenly distributed during the whole period (Table 2.25).

The large proportion of pupils in primary education was enrolled in state schools, with the exception of Thrace and Athens. In the Athens region a good proportion of pupils was enrolled in private schools at the beginning of the sixties (29 per cent in 1960-61). By 1976-77, the percentage in private schools had been reduced to 19 per cent, but it still accounted for a sizeable amount of the primary school population (Table 2.26). In Thrace the percentage of children enrolled in state schools decreased by 9 per cent over

Table 2.21

PRESCHOOL EDUCATION : DISTRIBUTION OF PUPILS
BY SEX AND REGION, 1960-1976

Region	1960-61			1970-71			1976-77		
	Total	Girls	%	Total	Girls	%	Total	Girls	%
Total	40,247	19,194	47.7	87,087	42,239	48.5	118,120	57,365	48.6
Greater Athens	5,101	2,392	46.9	14,673	7,014	47.8	27,077	13,030	48.1
Rest of Central Greece & Euboea	1,459	696	47.7	7,736	3,762	48.6	12,088	5,939	49.1
Peloponnesos	819	371	45.3	4,875	2,368	48.6	9,068	4,325	47.7
Ionian Islands	274	93	33.9	822	404	49.1	1,622	792	48.8
Epirus	3,008	1,410	46.9	5,764	2,830	49.1	5,447	2,693	49.4
Thessaly	1,679	778	46.3	7,748	3,803	49.1	10,715	5,235	48.8
Macedonia	24,087	11,365	47.2	35,744	17,310	48.4	38,303	18,731	48.9
Thrace	2,057	961	46.7	3,367	1,689	50.2	3,860	1,867	48.4
Aegean Islands	990	480	48.5	2,202	1,048	47.6	3,715	1,784	48.0
Crete	703	328	46.7	4,156	2,011	48.4	6,225	2,969	47.7

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, Provisional data.

Table 2.22

PRESCHOOL EDUCATION. NUMBER AND PERCENTAGES OF PUPILS
ENROLLED IN STATE SCHOOLS 1960-1976

Region	1960-61	1970-71	1976-77
Total	40,247 (84.3)	87,087 (85.5)	118,120 (85.4)
Greater Athens	5,101 (24.9)	14,673 (37.9)	27,077 (52.4)
Rest of Central Greece & Euboea	1,459 (82.4)	7,736 (93.7)	12,088 (93.6)
Peloponnesos	819 (33.9)	4,875 (90.7)	9,068 (91.7)
Ionian Islands	274 (72.2)	822 (86.0)	1,622 (94.4)
Epirus	3,008 (95.6)	5,764 (98.3)	5,447 (97.6)
Thessaly	1,679 (81.2)	7,748 (94.7)	10,715 (96.9)
Macedonia	24,087 (96.7)	35,744 (95.8)	38,303 (95.6)
Thrace	2,057 (98.9)	3,367 (100.0)	3,860 (98.8)
Aegean Islands	990 (92.8)	2,202 (95.7)	3,715 (96.3)
Crete	703 (69.6)	4,156 (91.0)	6,225 (93.5)

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, Provisional data.

Table 2.23

PRESCHOOL EDUCATION : ENROLMENT GROWTH BY TYPE OF SCHOOL, SEX AND REGION

Region	% growth in enrolments							
	Total				State		Private	
	Total		Girls					
	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76
Total	116	36	120	36	119	36	100	36
Greater Athens	118	85	193	86	337	155	138	41
Rest of Central Greece & Euboea	430	56	441	58	503	56	89	60
Peloponnesos	495	86	538	83	1,491	88	-16	66
Ionian Islands	200	97	334	96	257	117	51	-21
Epirus	92	-5	101	-5	97	-6	-27	35
Thessaly	361	38	389	38	438	41	30	19
Macedonia	48	7	52	8	47	7	88	9
Thrace	64	15	76	11	65	13		
Aegean Islands	122	69	118	70	102	70	34	44
Crete	491	50	513	48	105	54	74	9

Sources : Tables 2.21, 2.22.

Table 2.24

PRESCHOOL EDUCATION. SCHOOLS BY REGION AND TYPE, 1960-61, 1970-71 AND 1976-77

Region	Total			State			Private		
	1960-61	1970-71	1976-77	1960-61	1970-71	1976-77	1960-61	1970-71	1976-77
Total	1,089	2,402	3,481	837	2,088	3,054	252	314	427
Greater Athens	199	341	656	24	104	324	175	237	332
Rest of Central Greece & Euboea	31	181	343	21	162	322	10	19	21
Peloponnesos	21	131	269	5	121	251	16	10	18
Ionian Islands	7	24	49	4	21	47	3	3	2
Epirus	99	221	245	90	219	241	9	2	4
Thessaly	48	232	321	23	223	315	25	9	6
Macedonia	589	984	1,161	586	959	1,129	3	25	32
Thrace	60	118	165	52	118	163	8	-	2
Aegean Islands	24	52	107	22	50	104	2	2	3
Crete	11	118	165	10	111	158	1	7	7

Sources : N.S.S.G., Statistics of Education 1960-61, 1970-71, Primary Education
1976-77 : Ministry of Education, Education Statistics, provisional data.

the whole period and remained rather constant between 1970 and 1976 (Table 2.26). In all other regions the proportion of pupils in private schools was very small and did not vary considerably over time.

Overall enrolments decreased slightly in the decade between 1960 and 1970, including girls (Table 2.27). This change was unevenly distributed among the country's regions, ranging from a decrease of 23.4 per cent in the Aegean Islands to an increase of 46.3 per cent in the Athens area. Enrolments in Central Greece, Macedonia and Thrace remained constant, while in all other areas the decrease was substantial, ranging from 10.8 in Crete to 23.4 per cent in the Aegean Islands. This was more or less compatible with demographic changes (due mainly to migration) (See Table 2.7), where the rate of population changes in the

country's regions are presented[1]. The rate of overall growth favoured private schools : 11.1 per cent in contrast to -0.9 for state schools (Table 2.27), although the magnitude of the change at the national level was not important (Table 2.26). The highest increase in state school enrolments occurred in the Athens region (63.3 per cent) ; while that in private schools occurred in the Ionian Islands (where pupils in private schools had risen from 162 to 296[2]).

Changes were more substantial in the period 1970-1976, when overall enrolments increased by 2 per cent, the girls' share being 3 per cent (Table 2.27). The changes were less dispersed among the country's regions (compared to the change in 1960-1970), ranging from 15.8 per cent in Epirus to 25.5 per cent in Athens. While overall enrolments remained fairly steady in state schools, they increased by a considerable percentage in some private schools (e.g., 171 per cent in Epirus, 66 per cent in Central Greece and 47 per cent in Peloponnesos and Crete).

It is important to notice that enrolments in state schools in the Athens region increased proportionally more than enrolments in private schools but the difference was far less dramatic than in the period 1960-70.

Although the number of children in primary education rose slightly, the number of schools was reduced. This shows a tendency towards consolidation. Even in the Athens area, where enrolments have grown by 82 per cent, the number of schools increased by only 8 per cent.

The average size of primary schools is rather small for the whole country, excluding the Athens region and Macedonia. It is apparent that in the two large urban centres, namely, Athens and Salonica, where there is a continuous population increase, the average size of schools is larger and tends to increase over time (Table 2.29). The small average number of schools in the country's regions is due to the plethora of one-teacher small schools existing in the rural areas (Tables 2.30a and 2.30b).

Table 2.25

PRIMARY EDUCATION : DISTRIBUTION OF PUPILS BY SEX AND REGION, 1960-1976

Region	1960-61			1970-71			1976-77		
	Total	Girls	%	Total	Girls	%	Total	Girls	%
Greece, total	921,262	439,230	47.7	919,984	439,315	47.8	938,597	452,284	48.3
Greater Athens	141,008	68,033	48.2	206,326	98,870	48.0	258,878	125,322	48.4
Rest of Central Greece & Euboea	112,642	53,892	47.8	113,803	54,592	48.0	111,290	53,721	48.3
Peloponnesos	136,805	64,691	47.3	114,359	54,703	47.8	101,045	48,677	48.2
Ionian Islands	25,116	11,924	47.5	20,255	9,799	48.4	17,445	8,378	48.0
Epirus	51,926	24,735	47.6	40,692	19,275	47.4	34,250	16,404	47.9
Thessaly	85,145	41,321	48.5	75,874	36,292	47.8	72,426	34,990	48.3
Macedonia	211,148	100,230	47.5	211,231	100,503	47.6	215,953	103,852	48.1
Thrace	42,561	20,047	47.1	42,221	19,949	47.2	36,494	17,225	47.2
Aegean Islands	58,151	27,403	47.1	44,525	21,042	47.3	40,483	19,448	48.0
Crete	56,760	26,954	47.5	50,698	24,290	47.9	50,333	24,267	48.2

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

1) Demographic changes are considered the only important factor affecting changes in enrolments in this area since enrolment rates, as we shall see later, show no decrease in the actual participation of the population in education.

2) We present here the exact numbers to show that changes in private schools (with the exception of the Athens region) are small in absolute numbers. For this reason the magnitude of percentage increases in Table 2.27 should be regarded with caution.

Table 2.26

PRIMARY EDUCATION : NUMBER OF PUPILS AND PERCENTAGE ENROLLED IN STATE SCHOOLS, 1960-1976

Region	1960-61	1965-66	1970-71	1974-75	1976-77
Total	921,262 (93.4)*	975,869 (93.4)	919,984 (92.7)	929,906 (92.0)	938,597 (92.0)
Greater Athens	141,008 (71.2)*	181,733 (77.9)	206,326 (79.5)	246,537 (80.4)	258,878 (81.2)
Rest of Central Greece & Euboea	112,642 (99.0)*	120,453 (99.0)	113,803 (98.7)	104,346 (98.2)	111,290 (97.7)
Peloponnesos	136,805 (98.9)*	132,498 (98.7)	114,359 (98.9)	110,583 (98.2)	101,045 (98.2)
Ionian Islands	25,116 (99.3)*	24,051 (98.4)	20,255 (98.6)	18,323 (98.2)	17,445 (98.0)
Epirus	51,926 (99.7)*	50,638 (99.8)	40,692 (99.7)	35,450 (99.5)	34,250 (98.9)
Thessaly	85,145 (98.9)*	85,289 (99.0)	75,874 (99.1)	72,389 (99.1)	72,426 (99.0)
Macedonia	211,148 (98.5)*	226,993 (98.6)	211,231 (98.2)	214,554 (97.9)	215,953 (97.7)
Thrace	42,561 (71.3)*	47,237 (66.8)	42,221 (61.6)	37,536 (60.1)	36,494 (62.3)
Aegean Islands	58,151 (99.3)*	51,365 (99.4)	44,525 (99.3)	40,763 (99.3)	40,483 (99.2)
Crete	56,760 (98.9)*	55,612 (99.0)	50,612 (98.4)	49,425 (97.8)	50,333 (97.7)

Note : * Percentages also include night private schools.

Sources : N.S.S.G., Statistics of Education of respective years
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.27

PRIMARY EDUCATION ENROLMENT GROWTH BY TYPE OF SCHOOL, SEX AND REGION, 1960-1976

Region	% growth in enrolments							
	Total		Girls		State		Private	
	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76
Total	- 0.1	2.0	0.02	3.0	- 0.9	1.3	11.1	10.9
Greater Athens	46.3	25.5	45.3	26.8	63.3	28.2	4.3	14.8
Rest of Central Greece & Euboea	1.0	- 2.2	1.3	- 1.6	0.6	- 3.1	41.9	66.5
Peloponnesos	-16.4	-11.6	-15.4	-11.0	-16.4	-12.3	-13.8	47.8
Ionian Islands	-19.4	-13.9	-17.8	-14.5	-20.0	-14.4	82.7	19.3
Epirus	-21.6	-15.8	-22.1	-14.9	-21.7	-16.5	-15.5	171.3
Thessaly	-10.9	- 4.5	-12.2	- 3.6	-10.7	- 4.6	-28.4	4.6
Macedonia	0.03	2.2	0.3	3.3	- 0.3	1.7	24.7	31.6
Thrace	0.8	-13.6	- 0.5	-13.7	-14.4	-12.6	33.0	-15.1
Aegean Islands	-23.4	- 9.1	-23.2	- 7.6	-23.5	- 9.2	-19.6	6.2
Crete	-10.8	- 0.6	9.9	- 0.09	-11.1	- 1.5	23.2	47.4

Sources : Tables 2.25, 2.26.

Table 2.28

PRIMARY EDUCATION : NUMBER OF SCHOOLS BY REGION AND PERCENTAGE STATE SCHOOLS, 1960-1976

Region	1960-61	1965-66	1970-71	1974-75	1976-77
Total	11,057 (92.5)	10,822 (93.3)	9,838 (92.9)	9,729 (92.8)	9,743 (92.9)
Greater Athens	847 (47.1)	863 (58.3)	877 (61.5)	901 (63.5)	922 (64.5)
Rest of Central Greece & Euboea	1,573 (98.9)	1,529 (99.2)	1,370 (98.8)	1,281 (98.6)	1,364 (98.5)
Peloponnesos	1,991 (98.7)	1,956 (99.0)	1,744 (99.2)	1,798 (98.8)	1,724 (98.9)
Ionian Islands	397 (99.2)	400 (99.0)	357 (99.2)	359 (99.4)	363 (99.4)
Epirus	881 (99.8)	878 (99.9)	762 (99.9)	780 (99.7)	759 (99.6)
Thessaly	928 (98.5)	872 (98.6)	825 (98.5)	817 (98.5)	816 (98.5)
Macedonia	2,160 (98.7)	2,110 (99.1)	1,893 (98.8)	1,811 (98.6)	1,798 (98.6)
Thrace	658 (57.4)	638 (55.5)	602 (53.3)	591 (53.1)	583 (53.5)
Aegean Islands	710 (98.9)	660 (99.4)	598 (99.0)	582 (99.1)	588 (99.1)
Crete	912 (99.2)	916 (99.3)	810 (99.0)	809 (99.1)	826 (99.2)

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.29

PRIMARY EDUCATION : NUMBER OF CHILDREN PER SCHOOL, BY REGION AND TYPE OF SCHOOL 1960-76

Region		1960-61	1970-71	1976-77
Total	Total	83	94	96
	State	84	93	95
Athens	Total	166	235	281
	State	251	304	353
Rest of Central Greece & Euboea	Total	72	83	82
	State	72	83	81
Peloponnesos	Total	69	66	59
	State	69	65	58
Ionian Islands	Total	63	57	48
	State	63	56	47
Epirus	Total	59	53	45
	State	59	53	45
Thessaly	Total	92	92	89
	State	92	93	89
Macedonia	Total	98	112	120
	State	98	111	119
Thrace	Total	65	70	63
	State	80	81	73
Aegean Islands	Total	82	74	69
	State	82	75	69
Crete	Total	62	63	61
	State	62	62	60

Note : It includes private night school students.
Sources : Tables 2.25, 2.28.

Table 2.30(a)

PRIMARY EDUCATION : NUMBER OF DAY SCHOOLS BY TYPE OF SCHOOL AND REGION (URBAN, SEMI-URBAN, RURAL), 1974-75

Schools	Urban areas					Semi-urban	Rural
	Total Greece	Total	Greater Athens	Greater Salonica	Rest		
Total	8,966	1,517	564	157	796	699	6,780
1-Teacher schools	3,350	100	4	3	93	111	3,139
2-Teacher schools	2,336	110	18	5	87	75	2,151
3-Teacher schools	968	84	12	3	69	41	843
4-Teacher schools	445	56	18	1	37	41	348
5-Teacher schools	232	37	14	1	22	44	151
6-Teacher schools	767	454	148	60	246	188	125
7-Teacher schools	220	121	48	5	68	85	14
8-Teacher schools	146	110	47	9	54	33	3
9-Teacher schools	111	86	41	14	31	22	3
10-Teacher schools	72	54	26	4	24	16	2
11-Teacher schools	26	23	15	2	6	3	-
12-Teacher schools	259	249	153	47	49	9	1
13 and more-Teacher schools	34	33	20	3	10	1	-

Source : N.S.S.G., Statistics of Education 1974-75.

Table 2.30(b)

PRIMARY EDUCATION, NUMBER OF SCHOOLS BY TYPE OF SCHOOL, 1960-74

Type of School	1960-61	1965-66	1970-71	1974-75
Total	9,227	9,617	8,860	8,966
1-Teacher schools	4,050	3,599	3,077	3,350
2-Teacher schools	2,324	2,454	2,391	2,336
3-Teacher schools	1,004	1,228	1,047	968
4-Teacher schools	537	617	540	445
5-Teacher schools	308	365	338	232
6-Teacher schools	984	749	549	767
7-Teacher schools	8	255	254	220
8-Teacher schools	5	153	226	146
9-Teacher schools	4	77	142	111
10-Teacher schools	1	57	101	72
11-Teacher schools	2	14	49	26
12-Teacher schools	-	49	111	259
13 and more-Teacher schools	-	-	35	34

Sources : N.S.S.G., Statistics of Education of respective years.

2.2.4. Secondary General Education

Enrolments in secondary education at the beginning of the sixties included a fairly low proportion of girls (42 per cent), and a relatively high proportion of students in private schools (16.91 per cent). The highest proportion of girls was in the Athens region and the lowest in Epirus (Table 2.31). By 1965-66, enrolments in secondary education had risen by 27 per cent. The participation of girls was 44 per cent, the highest rate appearing in Athens (45.7) and the lowest in Epirus (38.7), as it is shown in Table 2.32.

The increase in secondary education was rather reduced between 1970-1976 and stood at 23.3 per cent. Again, during this period, Athens gets a larger share (29 per cent). The

discrepancy of the increases between Athens and the rest of the countries was higher in the period 1970-1976 than the discrepancy in the period 1965-1970. Unfortunately we do not have detailed data on population distribution and student migration at that educational level, which would enable us to trace precisely the factors affecting the situation. Was it really a pure increase in the student population in the large urban centre or was it migration which affected the student population ?

The proportion of girls increased systematically during 1960-1976, from 42 per cent in 1960-61, to 47.7 per cent in 1970-71 and 49.2 per cent in 1976-77 (Table 2.31). At the beginning of the period the number of girls was higher in the Athens region and lower in Epirus. This changed around 1970 and in 1970-71 girls were more numerous in Crete, Peloponnesos and Macedonia and less in the Aegean Islands and Thessaly (though the differences were usually small). In 1976-77, the participation of girls in secondary education was higher in Crete, Central Greece and Euboea (excluding Greater Athens) and Peloponnesos, and lower in the Aegean Islands, the differences being quite small in this case.

Summing up the changes in secondary education enrolments between 1960 and 1976, we observe :

- An overall increase of 90 per cent
- An increase in the participation of girls of 123 per cent
- An increase of enrolments in the Athens region of 100 per cent
- An increase of enrolments in the Aegean Islands by 28 per cent, the Ionian Islands by 36 per cent and Peloponnesos by 55 per cent.

The total number of secondary school students was distributed unevenly at the two levels of secondary education. In 1965 the number of students in upper secondary education was only 57.3 per cent of the number of students in lower secondary education at the national level. This number ranged from 45 per cent in Epirus to 72.9 per cent in Athens (Table 2.32). The majority of students at both levels were boys, the girls representing in 1965 an overall 43.9 per cent in lower secondary education and a percentage of 45 in upper secondary education [1].

In 1976, the number of students in upper secondary education was 71.9 per cent of the number of students in lower secondary education, ranging from 61.7 in Central Greece to 81 per cent in Athens. By 1976, the proportion of girls participating in secondary education had risen (it stood at 48.4 for lower secondary education and 50.3 per cent for upper secondary education, as shown in Table 2.32). Participation of girls is lower in Epirus and the Aegean Islands.

Private education had the highest enrolments in the regions of Athens and Macedonia, which indicates the concentration of private schools in the two large urban centres (Athens and Salonica). The expansion of secondary education in the period 1960-1965 was concentrated in state schools only, while the numbers of students in private schools remained constant. The proportion of private secondary education, in terms of total number of students, was 12.7 per cent in 1965, which showed a 24.8 per cent reduction since 1960-61 (Table 2.33). By 1970 there was an increase in the number of students in private schools, following the overall increases in the student population. In 1976, private school enrolments proportionally dropped, while those in state schools rose (Table 2.34). Overall increase in state school enrolments was 124 per cent between 1960 and 1976, while private school enrolments increased by 15 per cent only.

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1) The larger participation of girls in upper secondary education is due to the fact that more boys than girls participate in middle technical education.

The overall increase of students was 66.9 per cent in 1960-1970 and 23.3 per cent in 1970-1976. It ranged from 45 per cent (Ionian Islands) to 102.6 (Thessaly) for 1960-1970 and from 6.9 per cent (Aegean Islands) to 29.4 (Athens) in 1970-1976. Increases in state schools ranged from 27 (Aegean Islands) to 112.4 per cent (Thessaly) in 1960-1970, and from 7 (Aegean Islands) to 40.7 per cent (Athens) in 1970-1976.

Enrolments in private secondary education increased by 28.5 per cent in the first period, but dropped by 10.5 per cent in the period 1970-1976 (Table 2.34).

Enrolments differed also in the two secondary school levels, lower and upper ; they grew more in the upper secondary schools in all the regions of the country. At the same time, girls had a larger share in the increase between 1965 and 1976 at both levels (Table 2.35).

The growth in the number of secondary schools followed the same pattern as that of student enrolments, except for the period 1974-1976 when a slight decrease appeared (Table 2.36). The general trend shows a steady increase in the proportion of day schools in the whole country and in each one of the regions. So, by 1976, 80 per cent of the schools were state schools ranging from 58.7 per cent in Athens to 100 per cent in the Ionian Islands.

Private schools decreased proportionally and in absolute numbers between 1974 and 1976 (Table 2.36). This decrease, taken in conjunction with the growth in the number of students enrolled in state schools, shows clearly that the widespread belief that private education has been growing in recent years is not supported by the facts.

The average size of the secondary school is much more uniform among the country's regions than that of a primary school (Tables 2.37, 2.38). This is obviously due to the fact that secondary schools have minimum requirements regarding number of specialties and teachers. The average size of school does not vary considerably over time in the country's regions with the exception of Athens and Macedonia. In these cases the average size increased considerably between 1960 and 1976 (Table 2.37).

The distribution of schools by number of students shows an overall tendency to have smaller schools in the regions and larger ones in the two large urban centres of Athens and Macedonia (Table 2.38).

Table 2.31

SECONDARY EDUCATION : STUDENTS BY SEX AND REGION 1960-1976

Region	1960-61 Total			1970-71 Total			1976-77 Total		
	Total	Girls	%	Total	Girls	%	Total	Girls	%
Total	273,390	114,731	42.0	456,408	217,511	47.7	562,695	276,682	49.2
Greater Athens	88,866	40,683	45.8	146,334	69,636	47.6	189,324	92,762	49.0
Rest of Central Greece & Euboea	25,464	9,394	36.9	44,227	21,013	47.5	56,701	28,280	49.9
Peloponnesos	37,613	15,327	40.7	55,504	26,784	48.3	60,427	30,115	49.8
Ionian Islands	5,449	2,168	39.8	7,909	3,684	46.6	9,388	4,565	48.6
Epirus	9,480	2,938	31.0	18,011	8,339	46.3	20,135	9,217	47.4
Thessaly	17,253	6,190	35.9	34,953	15,947	45.6	41,676	21,266	48.6
Macedonia	51,894	22,046	42.5	93,676	45,281	48.3	123,108	60,337	49.0
Thrace	6,122	2,679	43.8	11,920	5,627	47.3	14,609	7,301	50.0
Aegean Islands	14,160	5,850	41.3	17,916	8,081	45.1	19,156	8,965	46.8
Crete	17,089	7,456	43.6	25,958	13,122	50.6	28,171	14,630	51.9

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.32

SECONDARY EDUCATION : STUDENTS BY LEVEL, SEX AND REGION 1960-1976

Region		1965-66			1976-77		
		Total	Girls	%	Total	Girls	%
Total	Lower	238,182	104,572	43.9	327,356	158,358	48.4
	Upper	136,434	61,338	45.0	235,339	118,324	50.3
Greater Athens	Lower	68,840	31,590	45.9	104,520	51,069	48.9
	Upper	49,656	22,566	45.4	84,804	41,698	49.2
Rest of Central Greece & Euboea	Lower	24,247	10,126	41.8	35,070	16,905	48.2
	Upper	11,009	4,614	42.1	21,631	11,375	52.6
Peloponnesos	Lower	33,513	14,674	43.8	36,433	17,634	48.4
	Upper	16,433	7,747	47.1	23,994	12,481	52.0
Ionian Islands	Lower	4,778	1,887	39.5	5,680	2,695	47.4
	Upper	2,527	1,157	45.8	3,708	1,870	50.4
Epirus	Lower	10,511	4,051	38.5	11,784	5,459	46.3
	Upper	4,737	1,848	39.0	8,351	4,017	48.1
Thessaly	Lower	17,553	7,075	40.3	23,729	11,266	47.5
	Upper	8,747	3,596	41.1	17,947	9,000	50.1
Macedonia	Lower	47,161	21,180	44.9	73,328	35,418	48.3
	Upper	26,080	11,978	45.9	49,780	24,919	50.1
Thrace	Lower	6,285	2,735	43.5	8,680	4,198	48.4
	Upper	2,955	1,344	45.5	5,929	3,103	52.3
Aegean Islands	Lower	10,682	4,458	41.7	11,601	5,351	46.1
	Upper	6,469	2,835	43.8	7,555	3,614	47.8
Crete	Lower	14,612	6,796	46.5	16,531	8,383	50.7
	Upper	7,821	3,653	46.7	11,640	6,247	53.7

Sources : N.S.S.G., Statistics of Education, Primary Education 1965-66 ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.33

SECONDARY EDUCATION : NUMBER AND PERCENTAGE OF STUDENTS ENROLLED IN STATE SCHOOLS

Region	1960-61	1965-66	1970-71	1974-75	1976-77	
					Lower	Upper
Total	273,390 (83.1)	374,616 (87.3)	456,408 (87.0)	519,367 (87.6)	327,356 (92.6)	235,339 (87.7)
Greater Athens	88,866 (68.9)	118,496 (75.2)	146,334 (75.6)	177,162 (77.7)	104,520 (85.2)	84,804 (78.5)
Rest of Central Greece & Euboea	25,464 (95.2)	35,256 (97.3)	44,227 (96.5)	48,911 (96.3)	35,070 (96.6)	21,631 (95.2)
Peloponnesos	37,613 (96.6)	49,946 (95.6)	55,504 (93.9)	58,184 (93.6)	36,433 (96.5)	23,994 (93.5)
Ionian Islands	5,449 (99.8)	7,305 (99.2)	7,909 (100.0)	8,560 (100.0)	5,680 (100.0)	3,708 (100.0)
Epirus	9,480 (96.3)	15,248 (98.4)	18,011 (97.1)	18,204 (96.9)	11,784 (98.0)	8,351 (94.6)
Thessaly	17,253 (86.3)	26,300 (90.7)	34,953 (90.5)	39,004 (93.0)	23,729 (97.7)	17,947 (93.3)
Macedonia	51,894 (79.9)	73,241 (86.0)	93,676 (87.6)	110,097 (88.4)	73,328 (94.0)	49,780 (89.4)
Thrace	n.a.	9,240 (94.3)	11,920 (92.8)	13,779 (90.6)	8,680 (94.8)	5,929 (95.4)
Aegean Islands	14,160 (99.0)	17,151 (99.5)	17,916 (99.5)	18,166 (99.0)	11,601 (99.8)	7,555 (99.2)
Crete	17,089 (84.3)	22,433 (93.3)	25,958 (91.1)	27,300 (92.6)	16,531 (95.7)	11,640 (92.9)

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education.

Table 2.34

SECONDARY EDUCATION, ENROLMENT GROWTH BY TYPE OF SCHOOL, SEX AND REGION, 1960-1976

Region	% growth in enrolments							
	Total				State		Private	
	Total		Girls					
	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76
Total	66.9	23.3	89.6	27.2	74.8	28.3	28.5	-10.5
Greater Athens	64.7	29.4	71.2	33.2	80.7	40.7	29.2	- 5.8
Rest of Central Greece & Euboea	73.7	28.2	123.7	34.6	76.0	27.6	28.0	43.6
Peloponnesos	47.6	8.9	74.8	12.4	43.3	10.5	169.8	-16.5
Ionian Islands	45.1	18.7	69.9	23.9	45.5	18.7	100*	-
Epirus	90.0	11.8	183.8	13.6	91.5	11.2	49.3	31.7
Thessaly	102.6	19.2	157.6	27.1	112.4	26.2	40.7	-53.5
Macedonia	80.5	31.4	105.4	33.3	97.8	38.3	11.7	-16.9
Thrace	94.7	22.6	110.0	29.7	84.8	25.5	n.a.	-15.1
Aegean Islands	26.5	6.9	38.1	10.9	27.1	7.0	-34.8	- 8.7
Crete	51.9	8.5	76.0	11.5	64.2	12.6	-13.8	-33.4

Note : * Private school students in 1960 : 12
" " " " 1970 : 0

Sources : Tables 2.31, 2.33.

Table 2.35

ENROLMENT GROWTH BY SECONDARY SCHOOL LEVEL, SEX AND REGION, 1965-1976

Region		% growth in enrolments	
		Total	Girls
Total	Lower	37.4	51.4
	Upper	72.5	92.9
Greater Athens	Lower	51.8	61.7
	Upper	70.8	84.8
Rest of Central Greece & Euboea	Lower	44.6	66.9
	Upper	96.5	146.5
Peloponnesos	Lower	8.7	20.2
	Upper	46.0	61.1
Ionian Islands	Lower	18.9	42.8
	Upper	46.7	61.6
Epirus	Lower	12.1	34.8
	Upper	76.3	117.4
Thessaly	Lower	35.2	59.2
	Upper	105.2	150.3
Macedonia	Lower	55.5	65.9
	Upper	90.9	108.0
Thrace	Lower	38.1	53.5
	Upper	100.6	130.9
Aegean Islands	Lower	8.6	20.0
	Upper	16.8	27.5
Crete	Lower	13.1	23.4
	Upper	48.8	71.0

Source : Table 2.32.

Table 2.36

SECONDARY EDUCATION : NUMBER OF SCHOOLS BY REGION AND PERCENTAGE STATE SCHOOLS

Region	1960-61	1965-66		1970-71	1974-75	1976-77	
		Lower	Upper			Lower	Upper
Total	691 (58.3)	909* (74.5)	774 (70.2)	940 (73.7)	1,137 (74.5)	1,123* (80.0)	921 (78.9)
Greater Athens	229 (34.9)	242 (50.4)	232 (50.9)	252 (48.8)	318 (53.5)	298 (58.7)	253 (62.1)
Rest of Central Greece & Euboea	63 (82.5)	111 (43.7)	79 (93.7)	122 (92.6)	130 (92.3)	146 (89.7)	112 (88.4)
Peloponnesos	85 (89.4)	143 (88.8)	109 (91.7)	145 (87.6)	159 (86.2)	158 (88.0)	117 (87.2)
Ionian Islands	13 (92.3)	22 (95.5)	17 (94.1)	20 (100.0)	22 (100.0)	23 (100.0)	16 (100.0)
Epirus	18 (88.9)	29 (96.6)	26 (92.3)	32 (93.7)	40 (90.0)	42 (92.9)	38 (86.8)
Thessaly	41 (65.9)	57 (73.7)	48 (72.9)	62 (71.0)	82 (80.5)	78 (89.7)	66 (81.8)
Macedonia	149 (45.6)	172 (66.3)	154 (67.5)	165 (69.1)	227 (69.6)	221 (80.5)	189 (78.8)
Thrace	16 (81.3)	22 (81.8)	19 (89.5)	24 (75.0)	29 (75.9)	28 (89.3)	25 (84.0)
Aegean Islands	39 (92.3)	60 (98.3)	47 (97.9)	62 (96.8)	66 (97.0)	65 (98.5)	52 (98.1)
Crete	38 (60.5)	51 (82.4)	43 (79.1)	56 (78.6)	64 (81.2)	64 (84.4)	53 (84.9)

Note : * If we want to consider the total number of schools, we use the number of lower secondary school units since each unit of upper secondary level is attached to a lower secondary level unit.

Sources :N.S.S.G., Statistics of Education of respective years.

Table 2.37

SECONDARY EDUCATION : AVERAGE NUMBER OF STUDENTS PER SCHOOL AND TYPE OF SCHOOL 1960-1976

Region	1960-61		1970-71		1976-77	
	Total	State	Total	State	Total	State
Total	396	564	486	573	501	567
Greater Athens	388	765	581	899	635	889
Rest of Central Greece & Euboea	404	466	363	378	388	416
Peloponnesos	442	478	383	410	382	414
Ionian Islands	419	453	395	395	408	408
Epirus	527	571	563	583	479	499
Thessaly	421	551	564	719	534	570
Macedonia	348	610	568	720	557	637
Thrace	383	460	497	615	522	555
Aegean Islands	363	389	289	297	295	298
Crete	450	626	464	537	440	493

Sources : Tables 2.31, 2.33, 2.36.

Table 2.38

SECONDARY GENERAL EDUCATION : STATE DAY SCHOOLS BY SIZE (NUMBER OF STUDENTS) AND REGION, 1974-75

Geographic region	Number of Registered Students							Total
	Up to 100	101-300	301-500	501-700	701-900	901-1200	1201 and over	
Greece, total	73	184	156	126	136	140	1	816
Greater Athens	1 (1.4)	3 (1.6)	10 (6.4)	27 (21.4)	52 (38.2)	61 (43.6)	-	154 (18.9)
Rest of Central Greece & Euboea	17 (23.3)	33 (17.9)	29 (18.6)	25 (19.8)	7 (5.2)	7 (5.0)	-	118 (14.5)
Peloponnesos	24 (32.9)	30 (16.3)	38 (24.3)	22 (17.5)	13 (9.6)	7 (5.0)	-	134 (16.4)
Ionian Islands	3 (4.1)	7 (3.8)	4 (2.6)	6 (4.8)	1 (0.7)	1 (0.7)	-	22 (2.7)
Epirus	2 (2.7)	11 (6.0)	8 (5.1)	4 (3.2)	6 (4.4)	4 (2.8)	-	35 (4.3)
Thessaly	8 (10.9)	12 (6.5)	7 (4.5)	7 (5.6)	15 (11.0)	13 (9.3)	-	62 (7.6)
Macedonia	4 (5.5)	34 (18.5)	34 (21.8)	20 (15.9)	29 (21.3)	33 (23.6)	1	155 (19.0)
Thrace	-	6 (3.3)	4 (2.6)	4 (3.2)	4 (2.9)	4 (2.9)	-	22 (2.7)
Aegean Islands	10 (13.7)	33 (17.9)	13 (8.3)	3 (2.4)	2 (1.5)	2 (1.4)	-	63 (7.7)
Crete	4 (5.5)	15 (8.2)	9 (5.8)	8 (6.3)	7 (5.2)	8 (5.7)	-	51 (6.2)

Note : Numbers in parenthesis are column percentages

Source : N.S.S.G., Statistics of Education 1974-75.

2.2.5. Technical and Vocational Education*

Technical and vocational education has expanded fairly recently since, traditionally, the great majority of students were channelled into general education courses. Such expansion, in terms of number of schools and students, is particularly noticeable in the decade between 1965 and 1977. In that period the number of schools rose from 349 to 1,856 and that of students from 75,237 to 155,750. (See Table 2.39). Given the fact that technical and vocational education functioned independently from the general education system, this trend can be said to represent a genuine increase in the demand for this type of education rather than the outcome of a systematic government policy. Another noteworthy trend is the substantially higher growth of technical as contrasted to vocational education. Indeed, as the figures indicate, there was a decrease of agricultural schools and students during the twenty-year period 1956-1976.

* This section includes data for all levels of technical and vocational education, i.e., lower, middle and higher.

As noted earlier, not all the schools of technical and vocational education are under the supervision of the Ministry of Education. A percentage ranging between 10 and 20 falls under other ministries (Table 2.40). The number of students enrolled in schools under the supervision of the Ministry of Education remained fairly constant in the seventies (Table 2.41). Two dimensions have changed considerably however, with respect to these schools : the first is the relative distribution of students in the various educational levels ; and the second is the proportion of students enrolled in the state schools (i.e. those schools under the complete control and support of the Ministry of Education). More precisely, the number of students enrolled in higher technical and vocational education under the supervision of the Ministry of Education more than doubled between 1973 and 1977. On the other hand, enrolments in the middle level schools had a rather low rate of increase (12.7 per cent), while the number of students in the lower level schools has decreased substantially, namely, by 39.6 per cent (Table 2.41). A parallel change has been the increase in the number of students registered in the state rather than in the private schools : from 36.9 per cent of the total in 1973 to 63.2 per cent in 1977, i.e., an increase in absolute numbers of 69.9 per cent (Table 2.41).

It is interesting to observe here that these changes seem to be coextensive with the government's reform policy on technical and vocational education as embodied in Law 576/1977 (See Chapter 3.3).

The overall developments in lower and middle technical and vocational education (regardless of the ministry which supervises the institutions) show a similar pattern [1]. For one thing, the steady increase in the number of students, which continued up to 1974-75, has tapered off since then. Yet a substantial increase of enrolments has taken place in state schools, especially in Greater Athens and Macedonia. This can be interpreted as an indication of government intentions to take over full control of technical and vocational education. Furthermore, there was a clear tendency to distribute lower and middle technical and vocational education more evenly among the country's regions (Table 2.42).

In 1970-71, almost half of the students at this educational level were in Greater Athens and 25 per cent in Macedonia (Salonica). In 1974-75, the percentage in Athens was 43, while in Macedonia it remained constant. By 1976-77, Athens had 40 per cent of the total enrolments and Macedonia 27 per cent. With the exception of Greater Athens and Macedonia, the overwhelming proportion of student enrolments in the same year was concentrated in state schools in all the regions of the country, ranging from 93.8 and 91.8 per cent (Thrace, Central Greece, Aegean Islands) to 64.1 and 71.4 per cent (Peloponnesos, Crete). That year total enrolments in a-l state schools were 50 per cent. By 1976-77, with the exception of Athens and Macedonia, total enrolments in state schools had increased to 62.5 per cent ranging from 100 per cent in the Ionian Islands to 75 per cent in Peloponnesos. State school enrolments in Athens increased from 29 in 1974-75 to 44 per cent in 1976-77, although overall numbers had decreased[2] (Table 2.42).

The overall participation of girls at this educational level remained fairly constant and it was quite low. It should be remembered, though, that there has been no systematic policy to recruit girls for lower and middle technical and vocational schools. At the same time, anecdotal evidence from discussions with lower secondary school students shows that

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1) From an examination of this pattern it could be inferred that the main reason for the identified developments is government policies seeking to influence technical and vocational education in a way that was consistent with the provisions of Law 576.

2) This is obviously due to the decrease in private school enrolments, a development consistent with government policy.

many girls do not choose to go to technical and vocational schools mainly because of parental attitudes towards occupations and functions which are traditionally considered to be "a man's job".[1)]

Enrolments in middle technical and vocational schools are approximately 53 per cent of total enrolments at the first two levels. With enrolments in lower technical and vocational education decreasing, middle level enrolments increase proportionally over time. State school enrolments at this level and in comparison with total enrolments at lower and middle are lower in the two large urban centres and approximately the same in the country's regions. What is different at the level of middle technical and vocational education is the participation of girls which is higher at this level, 22.2 per cent, than lower and middle combined, 13.4 per cent for 1974-75 (Table 2.42).

Higher technical and vocational education shows the same trends as the two other levels, but more intensified. Thus overall enrolments in higher technical education have more than tripled between 1970 and 1976. State school enrolments increased from 65.4 in 1974 to 85 per cent in 1976 (Table 2.43). It is very important to note here the high rate of increase in the participation of girls. In 1970, girls in higher technical education were only 7.0 per cent of total student enrolments. In 1974, the percentage rose to 16.0, which accounted for the entire increase of the student body. By 1976, girls cohorts had increased to 27.0 per cent. Between 1970 and 1976 the increase of girls accounted for 40 per cent of total enrolment growth (Table 2.43). Higher vocational education has experienced less dramatic changes during the same period. Overall increases have been spectacular, while girls' participation decreased from 64 in 1970 to 43 per cent in 1976. This reflects an equalizing tendency in the participation of boys and girls both in technical and vocational higher education. State school enrolments in higher vocational increased less dramatically than in higher technical education. It is to be noted that whereas state school enrolments represent virtually all enrolments in the regions, they represent only 40.9 per cent in Greater Athens, where a majority of the student body (Table 2.43) is to be found.

It is clear that changes in technical education over time reflect the same pattern as when technical is combined with vocational education. Thus :

a) the rate of increase is higher between 1970 and 1974 and drops between 1974 and 1976 ;
b) enrolments in state schools increase gradually but steadily during the whole period ;
c) enrolments in state schools are proportionally very high in all regions except Greater Athens and Macedonia ; and
d) the participation of girls increases also and is higher in state schools (Table 2.44a).

Vocational education grew at the same rate between 1970 and 1974, and between 1974 and 1976. In 1970-71 the large proportion of the student body was concentrated in Greater Athens. With the exception of Macedonia, the distribution in the other regions was actually very small (Table 2.44b). Girls represent 64 per cent of total student enrolments with variations as high as 68 per cent in Greater Athens, as low as 13.5 per cent in Epirus, and zero in Thrace and Crete. The relatively high proportion of girls in vocational education may be explained by the fact that this type of education, in contrast to the technical type, leads to occupations which are socially accepted as "women's jobs". By 1974-75, enrolments in vocational schools had increased by 28.5 per cent, practically all of which was due to greater attendance by boys. By the same year state school enrolments had increased to 30 per cent, but the uneven regional distribution of total enrolments had remained unaltered. In 1976-77, the pattern of developments in vocational education remained approximately the same (Table 2.44b).

1) The alternative of course is not always general education but it is also staying at home or entering the labour market without previous training.

As noted previously, agricultural education has been slightly reduced over time. An important aspect in this case is the fact that this type of education is not effered in all the regions of the country (Table 2.44c). The age distribution of students in technical and vocational schools has reflected the role they have played so far, i.e. before the reform (Table 2.45). In the years 1970, 1974 and 1976, students in lower technical and vocational schools were primarily between 13 and 18 years old. This is consistent with the fact that the large proportion of students at this level are primary school graduates and secondary school drop-outs. Students in middle technical and vocational schools are between 16 and 24 years old, the overwhelming majority being between 19 and 24. This, in turn, is consistent with the fact that students at this level are secondary school graduates and secondary school drop-outs. Students in higher technical and vocational education are over 19, the great majority being between 19 and 24. These students are definitely graduates of secondary general and/or middle technical and vocational schools. (Table 2.45).

An important feature of recent developments in technical and vocational education is the steady and substantial increase in the number of schools. The increase of all schools of this type equals that of state schools over the period 1970-1976 (Table 2.46). Parallel to the government's intention to bring all technical and vocational schools under state control, a more even regional distribution of such newly-established schools has been observed (Table 2.46).

The overwhelming majority of technical and vocational schools are lower and middle level institutions (middle level schools being slightly more numerous). Approximately one-third are in Greater Athens (Table 2.47). Higher vocational institutions are located mainly in Greater Athens, but they are also to be found in urban centres in other regions (Table 2.48). By comparison, institutions of higher technical education are fewer, catering to more than three times as many students (Tables 2.43, 2.48). These institutions are located mainly in Athens and the large urban centres of the following regions : Crete, Macedonia, Peloponnesos and Thessaly. It is important to note that 31 out of 43 of these are state schools (Table 2.48).

2.2.6. Higher Education[1)]

Enrolments in higher education, especially university education, increased rapidly in the period 1955-1977. The highest increase, both in absolute numbers and rates, occurred in the early 1960s (Tables 2.49, 2.50). The various universities and schools have experienced different rates of increase with newly-founded institutions such as the University of Patras and the School of Industrial Studies-Salonica being among the top. The two largest universities of the country, the University of Athens and the University of Salonica, have also experienced high rates of increase, coming after the previous two. The College of Preschool Teacher Training and the College of Gymnastics follow with average annual increases higher than 16 per cent.

An actual decrease in student enrolments is to be found in two cases, the most noteworthy being in Teacher Training Colleges (Pedagogical Academies). This decrease, although very small, is significant, especially in view of the rapid overall growth of higher education (Table 2.49). It is due to the decreasing need for primary school teachers, brought about by the fairly constant enrolments at this level of schooling.

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1) In this section, higher education includes university education and teacher training (or higher general education). Higher technical and vocational education was presented in the previous section.

Table 2.39

TECHNICAL AND VOCATIONAL EDUCATION :
NUMBER OF SCHOOLS AND STUDENT ENROLMENTS, 1956-1976

Type of education and year	Number of schools	Number of students	% Change in number of schools		% Change in number of students	
ALL TECHNICAL AND VOCATIONAL EDUCATION						
1956-57	326	43,943				
1960-61	320	49,604	1956-75	7.1	1956-65	71.2
1965-66	349	75,237	1965-70	195.1	1965-70	43.4
1970-71	1,030	107,879	1970-76	80.2	1970-76	44.4
1974-75	1,531	147,799				
1976-77	1,856	155,750				
A. TECHNICAL						
1956-57	127	25,569				
1960-61	106	34,430	1956-65	70.1	1956-65	155.7
1965-66	216	65,371	1965-70	282.4	1965-70	40.1
1970-71	826	91,609	1970-76	79.9	1970-76	41.6
1974-75	1,234	127,134				
1976-77	1,486	129,686				
B. AGRICULTURAL						
1956-57	22	970				
1960-61	15	1,137	1956-65	- 0.5	1956-65	-37.4
1965-66	11	607	1965-70	- 0.2	1965-70	-34.3
1970-71	9	399	1970-76	- 0.3	1970-76	-32.6
1974-75	8	285				
1976-77	6	269				
C. VOCATIONAL*						
1956-57	177	15,976				
1960-61	199	14,037	1956-65	-31.0	1956-65	-42.0
1965-66	122	9,259	1965-70	59.8	1965-70	71.4
1970-71	195	15,871	1970-76	86.7	1970-76	62.5
1974-75	289	20,380				
1976-77	364	25,795				

Note : * excluding agricultural

Sources : N.S.S.G., Statistics of Education of respective years :
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.40

TECHNICAL AND VOCATIONAL EDUCATION :
SCHOOLS AND NUMBER OF STUDENTS BY RESPONSIBLE MINISTRY

Responsible ministry	1970-71		1975-76	
	Schools	Students	Schools	Students
Total	1,666	117,006	1,655	150,044
M. of Education	845	94,045	1,436	132,336
M. to the Prime Minister	164	9,624	9	631
M. of Labour	104	8,625	109	11,078
M. of Social Services	18	2,196	34	2,314
M. of Agriculture	8	370	7	268
M. Commercial Shipping	13	1,160	16	1,940
M. of Justice	4	101	3	97
M. of Transportation	4	351	-	-
M. of Finance	6	534	-	-
M. of Culture and Science	-	-	40	1,355
M. of Coordination	-	-	1	25

Sources : N.S.S.G., Statistics of Education of respective years.

Table 2.41

TECHNICAL AND VOCATIONAL EDUCATION :
STUDENTS BY EDUCATIONAL LEVEL AND TYPE OF SCHOOL, 1973-1977
SCHOOL UNDER THE JURISDICTION OF THE MINISTRY OF EDUCATION ONLY

Year	Higher		Middle		Lower		All levels	
	Total	State (% of higher)	Total	State (% of middle)	Total	State (% of lower)	Total (% of all Tech. & Voc.Ed.)	State (% of all levels)
1973-74	9,211	6,625 (71.9)	68,198	21,774 (31.9)	51,136	19,060 (37.3)	128,545 (88.1)	47,459 (36.9)
1974-75	11,414	8,763 (76.8)	69,872	26,940 (38.6)	50,694	21,339 (42.1)	131,980 (89.3)	57,042 (43.2)
1975-76	15,448	12,820 (83.0)	69,476	29,612 (42.6)	47,505	22,676 (47.7)	132,429* (88.3)	65,108 (49.2)
1976-77	16,814	14,214 (84.5)	77,938	41,005 (52.6)	41,786	23,683 (56.7)	136,538 (81.9)	78,902 (57.8)
1977-78	19,754	16,529 (83.7)	76,899	45,504 (59.2)	30,867	18,583 (60.2)	127,520	80,616 (63.2)

* The slight difference of 93 students which is observed between this number and the corresponding one in Table 2.40 is due to the fact that the data of the Ministry of Education represent numbers of students in the beginning of the school year while data in Table 2.40 represent the situation at the end of the school year.

Source : Ministry of Education, General Directorate of Technical and Vocational Education.

Table 2.42 (a)

LOWER AND MIDDLE TECHNICAL AND VOCATIONAL EDUCATION,
ENROLMENTS BY REGION, TYPE OF SCHOOL, AND SEX 1970-1976

Region		1970-71			1974-75			1976-77		
		Total	Girls	%	Total	Girls	%	Total	Girls	%
Total	All schools	98,301	13,889	(14.1)	134,117	18,020	(13.4)	131,521	18,862	(14.4)
	State	n.a.	n.a.		67,590	6,544	(9.7)	82,243	8,454	(10.3)
	%				(50.4)			(62.5)		
Greater Athens	All schools	45,061	7,698	(17.1)	58,098	8,867	(15.3)	52,394	9,301	(17.8)
	State	n.a.	n.a.		16,832	1,452	(8.6)	22,990	2,592	(11.3)
	%				(29.0)			(43.9)		
Rest of Central Greece & Euboea	All schools	6,725	315	(4.7)	9,371	455	(4.9)	10,594	601	(5.7)
	State	n.a.	n.a.		8,614	396	(4.6)	9,701	470	(4.8)
	%				(91.9)			(91.6)		
Peloponnesos	All schools	6,275	794	(12.7)	8,368	955	(11.4)	8,567	965	(11.3)
	State	n.a.	n.a.		5,367	463	(8.6)	6,387	486	(7.6)
	%				(64.1)			(74.6)		
Ionian Islands	All schools	777	41	(5.3)	1,723	297	(17.2)	1,422	209	(14.7)
	State	n.a.	n.a.		1,295	282	(21.8)	1,422	209	(14.7)
	%				(75.2)			(100.0)		
Epirus	All schools	2,925	585	(20.0)	3,300	433	(13.1)	2,987	305	(10.2)
	State	n.a.	n.a.		2,625	324	(12.3)	2,489	209	(10.4)
	%				(79.5)			(83.3)		
Thessaly	All schools	5,102	339	(6.6)	8,085	767	(9.5)	8,639	965	(11.2)
	State	n.a.	n.a.		6,294	531	(8.4)	6,914	569	(8.2)
	%				(77.8)			(80.0)		
Macedonia	All schools	23,958	3,424	(14.3)	34,181	4,968	(14.5)	35,488	4,847	(13.7)
	State	n.a.	n.a.		17,608	2,297	(13.0)	22,554	2,767	(12.2)
	%				(51.5)			(63.6)		
Thrace	All schools	478	69	(4.7)	2,425	208	(8.6)	2,705	272	(10.3)
	State	n.a.	n.a.		2,274	208	(9.1)	2,627	212	(8.1)
	%				(93.8)			(97.1)		
Aegean Islands	All schools	1,718	137	(8.0)	2,772	259	(9.3)	2,630	276	(10.5)
	State	n.a.	n.a.		2,544	178	(7.0)	2,485	193	(12.9)
	%				(91.8)			(94.5)		
Crete	All schools	4,292	487	(11.3)	5,794	811	(14.0)	6,100	1,128	(18.5)
	State	n.a.	n.a.		4,137	413	(10.0)	4,674	761	(16.3)
	%				(71.4)			(76.6)		

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.42 (b)

MIDDLE TECHNICAL AND VOCATIONAL EDUCATION :
ENROLMENTS AND PERCENTAGES OF TOTAL LOWER AND MIDDLE TECHNICAL AND VOCATIONAL EDUCATION BY REGION, TYPE OF SCHOOL, AND SEX, 1974-75

Region		1974-75			
		Middle Technical and Vocational			
		Total	(% of lower and middle)	Women	(% of middle)
Total	All schools	71,150	(53.0)	15,097	(21.2)
	State	30,995			
	(%)	(43.6)			
Greater Athens	All schools	33,817	(58.2)	7,506	(22.2)
	State	7,620			
	(%)	(22.5)			
Rest of Central Greece and Euboea	All schools	3,867	(41.2)	401	(10.4)
	State	3,740			
	(%)	(96.7)			
Peloponnesos	All schools	3,723	(44.5)	734	(19.7)
	State	2,277			
	(%)	(61.1)			
Ionian Islands	All schools	890	(51.7)	274	(30.8)
	State	795			
	(%)	(89.3)			
Epirus	All schools	1,863	(56.5)	422	(22.7)
	State	1,625			
	(%)	(87.2)			
Thessaly	All schools	4,112	(50.9)	733	(17.8)
	State	3,115			
	(%)	(75.8)			
Macedonia	All schools	17,473	(51.1)	4,073	(23.3)
	State	7,602			
	(%)	(43.5)			
	All schools	1,135	(46.8)	208	(18.3)
	State	1,135			
	(%)	(100.0)			
Aegean Islands	All schools	1,258	(45.4)	165	(13.1)
	State	1,111			
	(%)	(88.3)			
Crete	All schools	3,012	(52.0)	581	(19.3)
	State	1,974			
	(%)	(65.5)			

Source : N.S.S.G., Statistics of Education 1974-75.

Table 2.43

HIGHER TECHNICAL AND VOCATIONAL EDUCATION : STUDENT ENROLMENTS BY REGION, SEX, AND TYPE OF SCHOOL 1970-1976

Region		1970-71 Total	1970-71 Girls	1970-71 %	1974-75 Total	1974-75 Girls	1974-75 %	1976-77 Total	1976-77 Girls	1976-77 %
					A. TECHNICAL*					
Total	All schools	6,026	421	(7.0)	7,890	1,262	(16.0)	18,563	5,011	(27.0)
	State	n.a.	n.a.		5,158	1,191	(23.1)	15,786	4,910	(35.2)
	(%)				(65.4)			(85.0)		
					B. VOCATIONAL					
Total	All schools	3,552	2,276	(64.1)	5,792	2,440	(42.1)	5,666	2,442	(43.0)
	State	n.a.	n.a.		3,467	1,125	(32.4)	3,753	1,210	(32.2)
	(%)				(59.9)			(66.2)		
Greater Athens	Total	2,672	1,846	(69.1)	3,258	2,018	(62.0)	3,075	2,196	(71.4)
	State	n.a.	n.a.		1,055	742	(70.3)	1,257	1,004	(79.9)
	(%)				(32.4)			(40.9)		
Rest of Central Greece & Euboea	Total	-	-		754	-	(0.0)	853	-	
	State	-	-		754	-	(0.0)	853	-	
	(%)				(100.0)			(100.0)		
Peloponnesos	Total	58	1	(1.7)	22	6	(27.3)	6	1	(16.7)
	State	n.a.	n.a.		-	-		-	-	
	(%)				(0.0)			(0.0)		
Ionian Islands	Total	-	-		-	-		78	-	
	State	-	-		-	-		78	-	
	(%)							(100.0)		
Epirus	Total	92	30	(32.6)	319	-		178	-	
	State	n.a.	n.a.		319	-		178	-	
	(%)				(100.0)			(100.0)		
Thessaly	Total	31	-		-	-		-	-	
	State	n.a.	-		-	-		-	-	
	(%)									
Macedonia	Total	534	341	(63.9)	701	373	(53.2)	766	176	(23.0)
	State	n.a.	n.a.		601	340	(56.6)	682	137	(20.1)
	(%)				(85.7)			(89.0)		
Thrace	Total	-	-		-	-		-	-	
	State	-	-		-	-		-	-	
Aegean Islands	Total	165	58	(35.2)	612	43	(7.0)	541	29	(5.4)
	State	n.a.	n.a.		612	43	(7.0)	541	29	(5.4)
	(%)				(100.0)			(100.0)		
Crete	Total	-	-		126	-		169	41	(24.3)
	State	-	-		126	-		164	40	(24.4)
	(%)				(100.0)			(97.0)		

Note : * Not available by region.

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.44 (a)

TECHNICAL EDUCATION : ENROLMENTS BY REGION,
TYPE OF SCHOOL, AND SEX, 1970-71, 1974-75, 1976-77

Region		1970-71			1974-75			1976-77		
		Total	Girls	%	Total	Girls	%	Total	Girls	%
Total	All schools	91,609	6,330	(6.9)	127,134	10,846	(8.5)	129,686	13,281	(10.2)
	State	35,782	2,350	(6.6)	69,920	6,590	(9.4)	91,626	10,529	(11.5)
	(%)	(39.1)			(55.0)			(70.7)		
Greater Athens	Total	41,935	3,145	(7.5)	49,780*	4,181*	(8.4)	46,767	4,594	(9.8)
	State	10,730	733	(6.8)	16,132*	1,151*	(7.1)	26,340	n.a.	
	(%)	(25.6)			(32.4)			(56.3)		
Rest of Central Greece & Euboea	Total	6,288	201	(3.2)	8,990*	338*	(3.8)	11,782	828	(7.0)
	State	4,871	182	(3.7)	8,307*	336*	(4.0)	10,730	n.a.	
	(%)	(77.5)			(92.4)			(91.1)		
Peloponnesos	Total	5,575	356	(6.4)	7,573*	443*	(5.8)	9,295	887	(9.5)
	State	2,682	227	(8.5)	5,258*	415*	(7.9)	7,457	n.a.	
	(%)	(48.1)			(69.4)			(80.2)		
Ionian Islands	Total	777	41	(5.3)	1,723*	297*	(17.2)	1,430	198	(13.8)
	State	225	18	(8.0)	1,295*	282*	(21.8)	1,396	n.a.	
	(%)	(29.0)			(75.2)			(97.6)		
Epirus	Total	2,451	351	(14.3)	3,091*	348*	(11.3)	3,290	479	(14.6)
	State	1,190	164	(13.8)	2,547*	312*	(12.2)	2,861	n.a.	
	(%)	(48.6)			(82.4)			(87.0)		
Thessaly	Total	4,947	213	(4.3)	7,636*	526*	(6.9)	9,105	868	(9.5)
	State	2,955	128	(4.3)	6,159*	471*	(7.6)	7,739	n.a.	
	(%)	(59.7)			(80.7)			(85.0)		
Macedonia	Total	22,816	1,615	(7.1)	30,681*	2,606*	(8.5)	35,803	3,725	(10.4)
	State	8,527	606	(7.1)	16,820*	1,684*	(10.0)	24,390	n.a.	
	(%)	(37.4)			(54.8)			(68.1)		
Thrace	Total	1,373	69	(5.0)	2,224*	208*	(9.4)	2,780	322	(11.6)
	State	941	69	(7.3)	2,073*	208*	(10.0)	2,728	n.a.	
	(%)	(68.5)			(93.2)			(98.1)		
Aegean Islands	Total	1,336	34	(2.5)	2,381*	161*	(6.8)	2,630	272	(10.3)
	State	1,249	34	(2.7)	2,254*	147*	(6.6)	2,516	n.a.	
	(%)	(93.5)			(93.8)			(95.7)		

Note : * Numbers do not include higher technical education students for which there are no data on regional distribution. Total number of higher technical education students : 7,890 (girls 1,262).

Sources : N.S.S.G., Technical and Vocational Education Statistics of respective years
1976-77 : Ministry of Education Statistics, provisional data.

Table 2.44 (b)

VOCATIONAL EDUCATION : ENROLMENTS BY REGION,
TYPE OF SCHOOL, AND SEX, 1970-71, 1974-75, 1976-77
(excluding agricultural education)

Region		1970-71			1974-75			1976-77		
		Total	Girls	(%)	Total	Girls	(%)	Total	Girls	(%)
Total	All schools	15,869	10,152	64.0	20,398	10,874	53.3	25,795	13,034	50.5
	State	3,749	1,354	36.1	6,176	2,270	36.8	10,074	4,045	40.2
	(%)	(23.6)	(13.3)		(30.3)	(20.9)		(39.1)	(31.0)	
Greater Athens	Total	9,766	6,654	68.1	11,558	6,704	58.0	14,397	7,688	53.4
	State	1,485	844	56.8	1,737	1,043	60.0	2,638	1,632	61.9
	(%)	(15.2)	(12.7)		(15.0)	(15.6)		(18.3)	(21.2)	
Rest of Central Greece & Euboea	Total	499	115	23.0	1,135	74	6.5	1,629	294	18.0
	State	371	-	0.0	1,061	60	5.7	1,497	184	12.3
	(%)	(74.3)	(0.0)		(93.5)	(81.1)		(91.9)	(62.6)	
Peloponnesos	Total	704	338	48.0	817	518	63.4	1,029	619	60.2
	State	200	-	0.0	109	48	44.0	456	184	40.4
	(%)	(28.4)	(0.0)		(13.3)	(9.3)		(44.3)	(29.7)	
Ionian Islands	Total	-	-		-	-		303	111	36.6
	State	-	-		-	-		303	111	36.6
	(%)							(100.0)	(100.0)	
Epirus	Total	532	264	49.6	496	85	17.1	537	120	22.3
	State	223	30	13.5	365	12	3.3	428	44	10.3
	(%)	(41.9)	(11.4)		(73.6)	(14.1)		(79.7)	(36.7)	
Thessaly	Total	306	135	44.1	392	241	61.5	974	558	57.3
	State	87	25	28.7	78	60	76.9	374	193	51.6
	(%)	(28.4)	(18.5)		(19.9)	(24.9)		(38.4)	(34.6)	
Macedonia	Total	3,048	2,282	74.9	4,041	2,733	67.6	4,316	2,674	62.0
	State	694	397	57.2	1,367	953	69.7	2,391	1,196	50.0
	(%)	(22.8)	(17.4)		(33.8)	(34.9)		(55.4)	(44.7)	
Thrace	Total	105	-	0.0	201	-	0.0	305	95	31.1
	State	105	-	0.0	201	-	0.0	232	28	12.1
	(%)	(100.0)			(100.0)			(76.1)	(29.5)	
Aegean Islands	Total	547	161		1,003	141	14.1	995	158	15.9
	State	443	58		922	60	6.5	867	75	8.7
	(%)	(81.0)	(36.0)		(91.9)	(42.6)		(87.1)	(47.5)	
Crete	Total	362	203	56.1	755	335	44.4	1,310	717	54.7
	State	141	-	0.0	336	34	10.1	888	398	44.8
	(%)	(39.0)	(0.0)		(44.5)	(10.1)		(67.8)	(55.5)	

Sources : N.S.S.G., Technical and Vocational Education Statistics of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.44 (c)

AGRICULTURAL EDUCATION : ENROLMENTS BY REGION,
TYPE OF SCHOOL, AND SEX, 1970-71, 1974-75, 1976-77

Region		1970-71			1974-75			1976-77		
		Total	Girls	%	Total	Girls	%	Total	Girls	%
Total	All schools	399	3	(0.8)	285	2	(0.7)	269	14	(5.2)
	State	166	-		147	-		82	-	
	(%)	(41.6)			(51.6)			(30.5)		
Greater Athens	Total	19	-		18	-		14	-	
	State	19	-		18	-		14	-	
	(%)	(100.0)			(100.0)			(100.0)		
Rest of Central Greece & Euboea	Total	-	-		-	-		-	-	
	State	-	-		-	-		-	-	
	(%)									
Peloponnesos	Total	42	-		18	-		16	-	
	State	42	-		18	-		16	-	
	(%)	(100.0)			(100.0)			(100.0)		
Ionian Islands	Total	-	-		-	-		-	-	
	State	-	-		-	-		-	-	
	(%)									
Epirus	Total	34	-		32	-		28	-	
	State	34	-		32	-		28	-	
	(%)	(100.0)			(100.0)			(100.0)		
Thessaly	Total	40	-		57	-		-	-	
	State	40	-		57	-		-	-	
	(%)	(100.0)			(100.0)					
Macedonia	Total	264	3	(1.1)	160	2	(1.2)	211	14	(6.6)
	State	31	-		22	-		24	-	
	(%)	(11.7)			(13.7)			(11.4)		
Thrace	Total	-	-		-	-		-	-	
	State	-	-		-	-		-	-	
	(%)									
Aegean Islands	Total	-	-		-	-		-	-	
	State	-	-		-	-		-	-	
	(%)									
Crete	Total	-	-		-	-		-	-	
	State	-	-		-	-		-	-	
	(%)									

Sources : N.S.S.G., Technical and Vocational Education Statistics of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.45

TECHNICAL AND VOCATIONAL EDUCATION : STUDENTS BY AGE GROUP, EDUCATIONAL LEVEL, AND SEX, 1970-71, 1974-75, 1976-77

Age group and sex	1970-71			1974-75			1976-77		
	Lower	Middle	Higher	Lower	Middle	Higher	Lower	Middle	Higher
13 - 15 Total	22,954	148	1	28,970	865	-	24,518	1,218	5
boys	21,470	146	0	27,699	833	-	23,530	1,176	2
girls	1,484	2	1	1,271	32	-	988	42	3
16 - 18 Total	21,726	8,917	326	26,139	15,895	-	22,554	19,300	279
boys	20,788	8,025	255	24,964	14,380	-	21,633	17,487	183
girls	938	892	71	1,175	1,515	-	921	1,813	96
	over 19*								
19 - 24 Total	6,675	37,057	9,251	5,830	49,199	6,898	5,016	50,947	21,455
men	6,453	26,791	6,626	5,480	36,445	5,689	4,571	37,415	14,511
women	222	10,266	2,625	350	12,754	1,209	445	13,532	6,944
over 24 Total				800	5,169	989	945	5,889	2,470
men				748	4,373	936	847	4,908	2,060
women				52	796	53	98	981	410

Note : * 1970-71 data are not differentiated beyond the age of 19.

Sources : N.S.S.G., Education Statistics of respective years.

Table 2.46

TECHNICAL AND VOCATIONAL EDUCATION : NUMBER OF SCHOOLS
BY REGION AND TYPE OF SCHOOL, 1970-1976

Region		1970-71	1974-75*	1976-77*
Total (State)		1,030 (458)	1,531 (811)	1,856 (1,212)
Greater Athens	Total	422	590	672
	State	109	162	286
Rest of Central Greece & Euboea	Total	74	120	163
	State	56	101	147
Peloponnesos	Total	79	120	146
	State	44	78	112
Ionian Islands	Total	17	32	35
	State	6	22	35
Epirus	Total	33	47	52
	State	18	36	43
Thessaly	Total	65	86	120
	State	43	65	98
Macedonia	Total	226	323	428
	State	107	190	302
Thrace	Total	17	31	33
	State	15	30	31
Aegean Islands	Total	34	52	54
	State	29	49	50
Crete	Total	63	91	110
	State	31	51	77

Note : * For the years 1974-75 and 1976-77 the figures for each region do not include higher technical schools, the total number of which is
(a) for the year 1974-75 : 39 ; and
(b) for the year 1976-77 : 43.

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.47

TECHNICAL AND VOCATIONAL EDUCATION : NUMBER OF LOWER AND SECONDARY LEVEL SCHOOLS BY REGION, 1974-75, 1976-77

Region		Total	State	
			Total	Day Schools
Total	1974-75	1,415	754	598
	1976-77	1,733	1,147	952
Greater Athens	74-75	541	153	100
	76-77	619	274	205
Rest of Central Greece & Euboea	74-75	114	95	80
	76-77	156	140	108
Peloponnesos	74-75	118	78	67
	76-77	145	112	99
Ionian Islands	74-75	22	22	21
	76-77	34	34	33
Epirus	74-75	45	34	33
	76-77	51	42	41
Thessaly	74-75	86	65	50
	76-77	120	98	83
Macedonia	74-75	311	183	143
	76-77	419	296	245
Thrace	74-75	31	30	23
	76-77	33	31	31
Aegean Islands	74-75	47	44	38
	76-77	49	45	40
Crete	74-75	90	50	43
	76-77	107	75	67

Sources: N.S.S.G., Statistics of Education 1974-75 ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.48

HIGHER TECHNICAL AND VOCATIONAL EDUCATION SCHOOLS
BY TYPE AND REGION, 1974-75, 1976-77

Region		Total		State	
		A. TECHNICAL*			
	1974-75	39		n.a.	
	1976-77	43		31	
		B. VOCATIONAL			
		Total	Day school	Total	Day school
Total	74-75	77	49	30	28
	76-77	80	45	34	32
Greater Athens	74-75	49	28	9	9
	76-77	53	30	12	11
Rest of Central Greece & Euboea	74-75	6	6	6	6
	76-77	7	7	7	7
Peloponnesos	74-75	2	-	-	-
	76-77	1	1	-	-
Ionian Islands	74-75	-	-	-	-
	76-77	1	1	1	1
Epirus	74-75	2	2	2	2
	76-77	1	1	1	1
Thessaly		-	-	-	-
Macedonia	74-75	12	7	7	5
	76-77	9	8	6	6
Thrace		-	-	-	-
Aegean Islands	74-75	5	5	5	5
	76-77	5	5	5	5
Crete	74-75	1	1	1	1
	76-77	3	2	2	1

Note : * The distribution of higher technical schools is not available by region.

Sources: N.S.S.G., Statistics of Education 1974-75 ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

The distribution of students by field of study shows comparatively larger numbers in the social sciences[1] throughout this period (Table 2.50). Medicine, law and humanities were also represented by a sizeable proportion of the student body at the beginning of the 22-year period. The situation started changing in the early sixties when, as a consequence of specific government policies, enrolments in science, technology and agricultural studies increased proportionally, while those in humanities and medicine decreased (Table 2.50). The only considerable change by field of study after that, i.e., between 1965 and 1977, was a percentage increase of students in the social sciences and a corresponding decrease in agricultural studies. Science and technology have experienced the highest percentage increases throughout the period, averaging annually 34.2 and 31.1 per cent respectively. Thus the representation of students rose from 10.2 per cent in 1955 to 15.2 per cent in 1977 in science, and from 7.8 in 1955 to 10.6 per cent in 1977 in technology. Social sciences also had a high annual rate of increase (28.8 per cent). Art and medicine have shown the lowest increase, averaging annually 7.7 and 8.2 per cent respectively. In both cases, the share of student enrolments has decreased from 0.6 to 0.3 per cent in art and from 19.7 to 9.7 per cent in medicine. Table 2.51 includes detailed data on student enrolments by discipline over the period 1961-1976.

The participation of women is unevenly distributed among schools and/or universities, ranging in 1960 between 6.4 per cent in the School of Agricultural Studies to 32.5 per cent in the University of Athens (Table 2.52). By 1970, the situation had changed and women's participation ranged from 11.5 per cent in the National Technical University of Athens to 53.9 per cent in the School of Fine Arts. Apparently, the concentration of women in certain institutions as against others depends mainly on the existence of fields of study normally preferred by women.

It is clear that women's participation was higher in the humanities, fine arts, law and social sciences throughout the period 1960-1970 and remained so up to 1977 (Table 2.53). On the other hand, women's participation was lower in agricultural studies, technology and science. Medicine occupied a middle position (Table 2.53).

The rate of increase for women was very high, especially in the period 1960-1970, averaging 27.9 per cent annually ; the average annual rate of total student enrolments was 18.2 per cent during the same period (Tables 2.52, 2.53). The lowest rate of increase during this period occurred in the National Technical University of Athens, where the women's share was slightly above average (Table 2.52). On the other hand, the highest rate of increase occurred in agricultural studies, the School of Economic and Commercial Studies, the School of Political Studies and the University of Salonica (the increase in women's participation is especially impressive in the latter two institutions, where average increase in overall enrolments was rather low). After 1970 the average annual increase in overall enrolments was even lower. The average increase for women was also lower, although it was twice as large as the overall rate (Table 2.52). The lower rates of increase in that period were in the schools in which they were higher in the previous period, both in the case of women and in total student enrolments (Table 2.52).

The average annual rate of increase in women's enrolments was more evenly distributed among fields of study in 1960-1970, ranging from 65.6 per cent in agricultural studies and veterinary medicine to 17.2 per cent in technology (including architecture) (Table 2.53). The participation of women rose rapidly in the social sciences too during the first period.

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1) Social sciences and law are the fields of study which traditionally provide personnel for posts in the civil service.

In 1970-1977 the increase was not as impressive, the highest average rate being in technology (the same as in 1960-1970) and the social sciences. The lowest rate of increase appeared in medicine and fine arts owing to an overall decrease in enrolments in these fields (Table 2.53). Overall, women's participation in university education rose rapidly from 23 per cent in 1960 to 31.0 per cent in 1970, to 38.7 per cent in 1977.

University education represents the largest proportion of enrolments in higher education, with a sharp increase in the middle 60s. Higher general education (including teacher training) enrolments remain fairly at the same levels in absolute numbers, while higher technical and vocational education enrolments increase rapidly especially in the last few years (Table 2.54). These developments are the direct result of government policy which is regulating the numbers of new entrants in higher education at all levels[1].

This is primarily a consequence of the entrance examinations by which successes are regulated by the Ministry of Education. In recent years, the success rate has been decreasing owing to an increasing number of applicants and an effort by the Ministry to reduce slightly the number of new entrants (Table 2.55).

The distribution of successes by field of study favours the humanities, law, science and technology (also divinity in 1977), (Table 2.56). Success rates in higher general and technical and vocational education are lower than those in university education (Table 2.57a). In higher general education this is consistent with the trend to reduce the output of teacher training institutions. Higher technical and vocational education, it should be noted, is in the transitional stage of an expansionist policy.

Women enrolled in universities tend to be younger than men, the larger proportion of them being under 21 years of age (Table 2.58). This is also true for higher general education (Table 2.59).

The distribution of students by age group and educational institution indicates that the majority of them fall under the 19-24 age group, that is within the age limits of regular attendance in higher education (Table 2.60). In 1970-71, the percentage of students in the 19-24 age group ranged from 50.7 (School of Industrial Studies, Salonica) to 88.6 (the newly-founded University of Yannena). By 1974-75, the percentage had increased for all schools except the University of Athens, ranging from 58.0 (School of Political Sciences) to 96.3 (teacher training). It is apparent that the student population is younger in the teacher training institutions, in which the duration of studies is shorter, and the newly-founded universities (Thrace, Yannena, Patras). These are followed by the National Technical University of Athens (Table 2.60).

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1) There are some additional first-year new enrolments from transfer students, etc.

Table 2.49

HIGHER EDUCATION : STUDENT ENROLMENTS
BY SCHOOL OR UNIVERSITY 1955-1977

Educational Institution	Number of students					Average annual change (%) 1955-1977
	1955-56	1960-61	1965-66	1970-71	1977-78	
1. University of Athens	6,723	8,911	17,180	24,286	35,802	19.7
2. University of Salonica	3,924	6,307	17,814	23,107	24,786	24.2
3. University of Thrace	-	-	-	-	1,565	-
4. University of Yannena	-	-	-	1,313	2,746	15.6
5. University of Patras	-	-	-	1,220	3,867	31.0
6. National Technical University of Athens	1,272	1,993	3,267	5,766	5,149	13.9
7. School of Economic and Commercial Studies	2,075	2,120	4,779	5,681	5,251	7.0
8. School of Political Sciences	2,477	3,329	4,621	6,096	6,035	6.5
9. School of Industrial Studies of Piraeus	(1,023)*	1,921	3,779	3,715	5,054	10.0 (17.9)*
10. School of Industrial Studies of Salonica	-	642	1,649	1,693	5,004	40.0
11. School of Agricultural Studies	290	326	891	1,125	888	9.4
12. School of Fine Arts	105	109	281	267	284	7.8
All Universities	16,866	25,658	54,261	72,269	96,650	21.5
1. College of Gymnastics	139	163	349	521	617**	16.4
2. Colleges of Home Economics	-	-	326	261	268**	-1.6
3. Teacher Training Colleges	2,859	2,314	2,857	2,295	1,972**	-1.4
4. Preschool Teacher Training College	-	167	207	534	684**	18.2
All institutions of Teacher Training	2,998	2,644	3,739	3,611	3,541**	0.8

Notes : * The School of Industrial Studies was initially classified as non-university higher education.
** data for 1976-77.

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77, 1977-78 : Ministry of Education, General Directorate of Higher Education, provisional data.

Table 2.50

UNIVERSITY EDUCATION : STUDENTS ENROLMENTS
BY FIELD OF STUDY 1955-1977

Field of study**	Number of students						Annual average change % 1955-1977
	1955-56 (%)	1960-61 (%)	1965-66 (%)	1970-71 (%)	1975-76 (%)	1977-78 (%)	
Total	16,866 (100.0)	25,658 (100.0)	54,261 (100.0)	72,269 (100.0)	95,385 (100.0)	96,650 (100.0)	21.5
1. Humanities	2,633 (15.6)	3,193 (12.4)	6,250 (11.5)	8,273 (11.4)	14,957 (15.7)	12,219 (12.6)	16.5
2. Art	105 (0.6)	109 (0.4)	281 (0.5)	267 (0.4)	236 (0.2)	284 (0.3)	7.7
3. Law	2,627 (15.6)	4,088 (15.9)	9,480 (17.5)	9,549 (13.2)	9,742 (10.2)	13,957 (14.4)	19.6
4. Social sciences	4,552** (27.0)	8,012 (31.2)	14,828 (27.3)	22,387* (31.0)	34,072 (35.8)	33,358 (34.5)	28.8
5. Science	1,717 (10.2)	2,698 (10.5)	7,903 (14.6)	10,709 (14.8)	12,430 (13.0)	14,627 (15.2)	34.2
6. Technology	1,309 (7.8)	2,358 (9.2)	4,566 (8.4)	5,850 (8.1)	9,215 (9.7)	10,270 (10.6)	31.1
7. Medicine and pharmacy	3,330 (19.7)	4,075 (15.9)	7,900 (14.6)	11,629 (16.1)	12,618 (13.2)	9,366 (9.7)	8.2
8. Agricultural studies and Veterinary sciences	593 (3.5)	1,125 (4.4)	3,053 (5.6)	3,608 (5.0)	2,115 (2.2)	2,569 (2.7)	15.1

Notes : * Starting 1970-71 social sciences include the Departments of Political and Economic Sciences of the Law school.

** See Table 2.51 for a detailed list of the disciplines included in each field of study.

Sources : N.S.S.O., Statistics of Education of respective years ;
1977-78 : Ministry of Education, General Directorate of Higher Education, provisional data.

Table 2.51

HIGHER EDUCATION. STUDENTS BY FIELD OF STUDY 1961-1976
(IT INCLUDES UNIVERSITY AND HIGHER GENERAL EDUCATION)

Field of Study		1961	1962	1963	1964	1965	1966	1967*	1968*	1969	1970	1971	1972	1973	1974	1975	1976
Theology	(1)	877	715	596	550	509	542			750	713	729	661	676	733	900	984
Philosophy and literature	(1)	1,852	1,889	1,914	2,487	2,709	3,607			4,293	4,098	5,036	4,826	6,551	6,826	6,676	8,861
Foreign languages	(1)	464	648	931	1,206	1,747	2,101			3,733	3,674	2,508	2,722	3,046	3,089	3,203	4,805
Divinity	(1)	-	-	-	-	-	-			-	-	-	-	99	123	388	307
Law	(3)	4,088	4,319	4,851	6,202	6,853	7,814			9,569	10,116	9,546	8,446	9,242	10,069	11,495	9,742
Public law and political sciences	(4)		508	745	1,218	1,471	1,666			3,221	5,084	5,202	2,803	2,008	2,426	3,275	2,741
Political science	(4)	3,329	3,014	3,094	2,986	4,563	4,621	6,202	6,928	7,453	6,598	6,096	6,711	6,061	6,277	7,403	7,903
Economics	(4)	-	-	-	-	-	-	-	-				1,154	4,719	5,433	6,181	5,372
Economics and commerce	(4)	2,120	2,205	2,587	3,419	4,147	4,779	5,465	5,958	6,315	6,277	5,681	5,387	5,326	5,030	6,926	6,124
Industrial studies	(4)	2,563	2,637	2,856	3,924	4,729	5,428	5,701	6,674	5,841	5,386	5,408	5,996	6,947	8,193	11,212	11,773
Mathematics	(5)	913	1,101	1,441	2,040	2,561	2,829			3,840	4,283	4,875	5,221	5,329	5,464	5,957	6,204
Physics	(5)	699	930	1,229	1,608	2,007	2,001			1,511	1,491	1,829	2,021	2,244	2,394	2,863	3,186
Chemistry	(5)	249	321	362	542	807	813			844	798	1,077	998	1,053	1,078	1,204	1,497
Natural sciences	(5)											373	483	671	1,000	1,044	1,454
Civil engineering	(6)	959	1,103	1,261	1,472	1,778	1,605			2,199	2,221	2,302	2,281	2,267	2,317	3,021	3,388
Mechanical and electrical engineering	(6)	535	588	641	706	836	882			1,049	1,037	1,141	1,195	1,234	1,490	1,869	2,227
Architecture	(6)	456	536	602	741	986	1,046			1,235	1,186	1,172	1,228	1,222	1,234	1,479	1,543
Land surveying	(6)	178	203	267	330	491	551			774	737	767	773	793	850	998	890
Chemical engineering	(6)	158	159	184	215	251	482			323	293	320	325	508	422	633	629
Mine engineering	(6)	72	95	125	172	197	204			166	145	119	138	142	180	227	247
Naval engineering	(6)									-	13	29	73	123	184	256	291
Medicine	(7)	3,215	3,709	4,221	4,763	6,410	6,174			7,886	8,268	8,855	8,209	7,933	7,692	8,031	8,578
Dentistry	(7)	860	1,010	1,123	1,418	1,641	1,726			2,404	2,629	2,774	2,626	2,513	2,416	2,428	2,185
Pharmacy	(7)	398	431	507	644	819	859			1,167	1,193	1,250	1,266	1,396	1,527	1,665	1,855
Agricultural studies	(8)	824	895	1,080	1,373	1,719	2,200	1,008	1,188	3,041	2,936	2,606	2,183	1,747	1,362	1,024	1,055
Forestry	(8)	132	138	178	227	299	369			564	487	462	401	290	243	367	357
Veterinary sciences	(8)	169	175	188	250	370	484			551	620	540	565	584	601	836	703
Teacher training	(8)	2,481	2,391	2,798	2,983	3,100	3,064	3,292	4,545	2,942	2,744	2,950	3,048	3,223	3,612	3,840	3,395
Gymnastics		163	184	184	187	301	349	411	444	467	574	737	897	797	674	608	631

Notes : The numbers in parenthesis indicate the field of study (Tables 2.50, 2.52) under which the discipline is classified.

* not available by field of study.

Sources : N.S.S.O., Statistics of Education of respective years ;
1976 : Ministry of Education, education statistics provisional data.

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Table 2.52

HIGHER EDUCATION* : STUDENT ENROLMENTS BY SCHOOL OR UNIVERSITY AND SEX, 1960-1977

Institution of Higher Education	1960-61			1970-71			1977-78			Average annual change % 1960-1970		1970-1977	
	Total	Women	%	Total	Women	%	Total	Women	%	Total	Women	Total	Women
1. University of Athens	8,911	2,894	32.5	24,286	9,316	38.4	35,802	16,477	46.0	17.3	22.2	6.8	11.0
2. University of Salonica	6,307	1,543	24.5	23,107	6,830	29.6	24,786	9,699	39.1	26.6	34.3	1.0	6.0
3. University of Thrace	-	-	-	-	-	-	1,565	587	37.5	-	-	15.6	22.5
4. University of Yannena	-	-	-	1,313	547	41.7	2,746	1,410	51.3	-	-	-	-
5. University of Patras	-	-	-	1,220	170	13.9	3,867	734	19.0	-	-	3.1	47.4
6. National Technical University of Athens	1,993	224	11.2	3,766	433	11.5	5,149	784	15.2	8.9	9.3	5.2	11.6
7. School of Economic and Commercial Studies	2,120	202	9.5	5,681	1,195	21.0	5,251	1,647	31.4	16.8	49.2	-1.1	5.4
8. School of Political sciences	3,329	605	18.2	6,096	2,449	40.2	6,035	2,828	46.9	8.3	30.5	-0.1	2.2
9. School of Industrial Studies of Piraeus	1,921	262	13.6	3,715	886	23.8	5,054	1,451	28.3	9.3	23.8	5.1	8.8
10. School of Industrial Studies of Salonica	642	113	17.6	1,693	274	16.2	5,004	1,307	26.1	16.4	14.2	27.9	53.9
11. School of Agricultural Studies	326	21	6.4	1,125	138	12.3	888	232	26.1	24.5	55.7	-3.0	9.7
12. School of Fine Arts	109	41	37.6	267	144	53.9	284	165	58.1	14.5	25.1	0.9	2.1
All Universities	25,658	5,905	23.0	72,269	22,382	31.0	96,650	37,301	38.7	18.2	27.9	4.8	9.5
1. College of Gymnastics	163	76	46.6	737	226	30.7	617**	n.a.		35.2	19.7	-2.7	n.a.
2. College of Home Economics	-	-	-	242	242	100.0	268**	n.a.		-	-	1.8	n.a.
3. Teacher Training Colleges	2,314	1,054	45.5	2,726	1,205	44.2	1,972**	n.a.		1.8	1.4	-4.6	n.a.
4. Preschool Teacher Training Colleges	167	167	100.0	224	224	100.0	684**	n.a.		3.4	3.4	34.2	n.a.
All Institutions of Higher General Education	2,644	1,297	49.1	3,929	1,673	42.6	3,541	n.a.		4.9	2.9	-1.6	n.a.

Notes : * It does not include Higher Technical Education
** data for 1976-77

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77, 1977-78 : Ministry of Education, General Directorate of Higher Education, provisional data.

Table 2.53

HIGHER EDUCATION* : STUDENT ENROLMENTS BY FIELD OF STUDY AND SEX, 1960-1977

Field of Study	1960-61			1970-71			1977-78			Average annual change %			
	Total	Women	%	Total	Women	%	Total	Women	%	1960-1970		1970-1977	
										Total	Women	Total	Women
1. Humanities	3,193	1,685	52.8	8,273	5,594	67.6	12,219	9,932	76.9	15.9	23.2	6.8	9.7
2. Higher School of Fine Arts	109	41	37.6	267	144	53.9	284	165	58.1	14.5	25.1	0.9	2.1
3. Law	4,088	1,164	28.5	9,546**	3,609	37.8	13,957**	5,826	41.7	13.4	21.0	6.6	8.8
4. Social sciences	8,012	1,182	14.7	22,387**	6,370	28.4	33,358**	12,895	38.7	17.9	43.9	7.0	14.6
5. Science	2,698	529	19.6	10,709	2,478	23.1	14,627	4,234	28.9	29.7	36.8	5.2	10.1
6. Technology	2,358	268	11.4	5,850	729	12.5	10,270	1,612	15.7	14.8	17.2	10.8	17.3
7. Medicine and Pharmacy	4,075	970	23.8	11,629	2,959	25.4	9,466	2,605	27.8	18.5	20.5	-2.8	-1.7
8. Agricultural studies and Veterinary sciences	1,125	66	5.9	3,608	499	13.8	2,569	694	27.0	22.1	65.6	-4.1	5.6
All University Education	25,658	5,905	23.0	72,269	22,382	31.0	96,650	37,423	38.7	18.2	27.9	4.8	9.6
General Higher Education	2,644	1,297	49.1	3,929	1,897	48.3	1976-77			1960-70		1970-76	
							3,541	2,241	63.3	4.9	4.6	-1.4	2.6

Notes : * It does not include Higher Technical Education
** The Departments of Economics and Political Sciences of the School of Law are included in the field of Social Sciences

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77, 1977-78 : Ministry of Education, General Directorate of Higher Education, provisional data.

Table 2.54

HIGHER EDUCATION : STUDENT ENROLMENTS BY TYPE OF INSTITUTION AND SEX, 1955-1976

Type of Institution	1955-56			1960-61			1965-66			1970-71			1974-75			1976-77		
	Total	Women	%	Total	Women	%	Total	Women	%	Total	Women	%	Total	Women	%	Total	Women	%
University education	16,866	3,482	20.6	25,658	5,905	23.0	54,261	16,524	30.5	72,269	22,382	31.0	92,920	32,685	35.2	95,017	36,696	38.6
%							(85.0)	(86.9)		(84.3)	(83.0)		(83.4)	(82.9)		(77.4)	(79.1)	
Higher general education	2,998	1,294	43.2	2,644	1,297	49.1	3,739	1,987	53.1	3,929	1,897	42.6	4,839	3,028	62.6	3,541	2,241	63.3
%							(5.9)	(10.5)		(4.6)	(7.0)		(4.3)	(7.7)		(2.9)	(4.8)	
Higher technical and vocational education	n.a.	n.a.		n.a.	n.a.		5,840	494	8.5	9,578	2,697	28.2	13,682	3,702	27.1	24,229	7,453	30.8
%							(9.1)	(2.6)		(11.2)	(10.0)		(12.3)	(9.4)		(19.7)	(16.1)	
All Higher education	-	-		-	-		63,840	19,005	29.8	85,776	26,976	31.4	111,441	39,415	35.4	122,787	46,390	37.8
							(100.0)	(100.0)		(100.0)	(100.0)		(100.0)	(100.0)		(100.0)	(100.0)	

Sources : N.S.S.G., Statistics of Education for respective years ;
1976-77 : Ministry of Education, provisional data.

Table 2.55

UNIVERSITY EDUCATION : APPLICANTS AND SUCCESSES 1968-1977

Year	Applicants	Successes	Success rate
1968	32,864		
1969	36,654		
1970	38,580		
1971	37,071		
1972	38,866		
1973	47,795		
1974	54,955	14,262	25.9
1975	66,113	15,701	23.7
1976	64,872	11,891	18.3
1977	72,481	13,223	18.2

Source : Ministry of Education, Division of Planning and Operations Research and Service of Entrance Examinations.

Table 2.56

HIGHER EDUCATION : NEW FIRST-YEAR ENROLMENTS AS A PERCENTAGE OF CORRESPONDING AGE GROUPS (1970)

1. Belgium	28.5
2. Denmark	26.0
3. Germany	15.8
4. Greece	13.0
5. France	22.4
6. Italy	24.1
7. Netherlands	18.3
8. Portugal	6.6
9. Spain	18.1

Source : Education, Inequality and Life Chances, Vol. I, op.cit.

Table 2.57 (a)

UNIVERSITY EDUCATION : SUCCESS RATES BY FIELD OF STUDY 1974-1977

Field of study	1974	1975	1976	1977
Humanities	37.5	45.2	27.3	30.0
Law	23.3	22.4	21.4	24.5
Social sciences	22.3	17.4	12.8	12.0
Science and Technology	39.6	29.6	18.5	23.8
Medicine and pharmacy	14.8	17.8	9.9	10.6
Divinity	-	-	-	33.3

Source : Ministry of Education, Service of Entrance Examinations.

Table 2.57 (b)

HIGHER EDUCATION (GENERAL, TECHNICAL AND VOCATIONAL) :
APPLICANTS AND SUCCESSES (1974-1977

Year	Teacher Training Academies		Success rate	Centres of Higher Technical and Vocational Education		Success rate
	Applicants	Successes		Applicants	Successes	
1974-75	8,609	2,312	18.0	13,909	2,485	17.8
1975	9,699	1,445	14.9	18,476	4,049	21.9
1976	7,181			39,533	7,515	19.0
1977	7,023	1,320	18.8	39,393	6,783	17.2

Source : Ministry of Education, Service of Entrance Examinations.

Table 2.58

UNIVERSITY EDUCATION : STUDENTS BY AGE AND SEX, 1975-76

Age	Men	%	Women	%	Total
Total	59,684	62.6	35,701	37.4	95,385
17 - 18	5,269	51.5	4,967	48.5	10,236
18 - 19	8,065	53.8	6,924	46.2	14,989
19 - 20	8,450	56.4	6,528	43.6	14,978
20 - 21	8,224	59.3	5,651	40.7	13,875
21 - 22	5,893	65.1	3,161	34.9	9,054
22 - 23	4,678	66.9	2,316	33.1	6,994
23 - 24	3,683	68.7	1,679	31.3	5,362
24 - 25	2,924	73.1	1,076	26.9	4,000
25 - 26	2,108	72.9	783	27.1	2,891
26 - 27	1,871	75.9	595	24.1	2,466
27 - 28	1,459	75.0	487	25.0	1,946
28 - 29	1,242	75.1	411	24.9	1,653
over 30	5,818	83.8	1,123	16.2	6,941

Source : N.S.S.G., Statistics of Education 1975-76, p. 15.
Average age of men 22.38
Average age of women 20.78
Mode for men : age 18-21
Mode for women : age 18-21

Table 2.59

HIGHER EDUCATION : STUDENTS BY AGE AND SEX, 1975-76

Age	Men	%	Women	%	Total
Total	1,740	39.5	2,668	60.5	4,408
17 - 18	241	30.9	540	69.1	781
18 - 19	537	35.6	972	64.4	1,509
19 - 20	408	37.3	687	62.7	1,095
20 - 21	229	45.8	271	54.2	500
21 - 22	91	45.5	109	54.5	200
22 - 23	89	70.6	37	29.4	126
23 - 24	80	75.5	26	24.5	106
24 - 25	39	88.6	5	11.4	44
25 - 26	15	75.0	5	25.0	20
26 - 27	8	57.1	6	42.9	14
27 - 28	3	50.0	3	50.0	6
28 - 29	-		-		-
over 30	-		7	100.0	7

Source : N.S.S.G., Statistics of Education 1975-76, p. 15.
Average age of men : 19.70
Average age of women : 19.30
Mode for men : age 18-20
Mode for women : age 17-20

Table 2.60

HIGHER EDUCATION : STUDENTS BY EDUCATIONAL INSTITUTION, AGE GROUP AND SEX, 1970-71, 1974-75

Educational Institution	1970-71				1974-75			
	19 - 24		over 25		19 - 24		over 25	
	Total (%)*	Women (%)**	Total (%)*	Women (%)**	Total (%)*	Women (%)**	Total (%)*	Women (%)**
1. University of Athens	18,405 (75.8)	7,996 (85.8)	5,881 (24.2)	1,320 (14.2)	19,744 (67.2)	9,958 (78.8)	9,608 (32.7)	2,675 (21.2)
2. University of Salonica	15,777 (68.3)	5,511 (80.7)	7,330 (31.7)	1,319 (19.3)	19,181 (70.8)	7,940 (82.1)	7,900 (29.2)	1,735 (17.9)
3. University of Thrace	-	-	-	-	283 (94.3)	107 (99.1)	17 (5.7)	1 (1.0)
4. University of Yannena	1,163 (88.6)	514 (94.0)	150 (11.4)	33 (6.0)	2,254 (90.8)	1,084 (96.6)	228 (9.2)	38 (3.4)
5. University of Patras	1,160 (95.1)	168 (98.8)	60 (4.9)	2 (1.2)	2,678 (91.8)	481 (95.6)	238 (8.2)	22 (4.4)
6. National Technical University of Athens	3,137 (83.3)	379 (87.5)	629 (16.7)	54 (12.5)	3,994 (88.1)	578 (94.6)	538 (11.9)	33 (5.4)
7. School of Economic and Commercial Studies	4,138 (72.8)	1,082 (90.5)	1,543 (27.2)	113 (9.4)	4,743 (68.5)	1,497 (80.0)	2,177 (31.5)	374 (20.0)
8. School of Political Sciences	3,469 (56.9)	1,901 (77.6)	2,627 (43.1)	548 (22.4)	4,291 (58.0)	2,461 (78.9)	3,108 (42.0)	656 (21.0)
9. School of Industrial Studies of Piraeus	2,300 (61.9)	704 (79.5)	1,415 (38.1)	182 (20.5)	4,141 (72.0)	1,236 (84.1)	1,610 (28.0)	233 (15.9)
10. School of Industrial Studies of Salonica	859 (50.7)	210 (76.6)	834 (49.3)	64 (23.4)	3,543 (64.9)	1,133 (82.1)	1,918 (35.1)	247 (17.9)
11. School of Agricultural Studies	941 (83.6)	127 (92.0)	184 (16.4)	11 (8.0)	349 (72.3)	63 (88.7)	134 (27.7)	8 (11.3)
12. School of Fine Arts	152 (56.9)	92 (63.9)	115 (43.1)	52 (36.1)	153 (70.5)	93 (76.9)	64 (29.5)	28 (23.1)
13. Teacher Training	n.a.	n.a.	n.a.	n.a.	7,569 (96.3)	3,748 (98.8)	289 (3.7)	46 (1.2)

Notes : * percentage of all registered students
** percentage of all registered women

Sources : N.S.S.G., Statistics of Education of respective years.

Chapter 2.3.

TEACHERS AND STUDENT/TEACHER RATIOS

2.3.1. Preschool Education

The number of teachers[1] in preschool education has increased steadily over the past twenty years following the increase in the number of preschool children (Table 2.61). In the state sector the gradual increase of pupils was interrupted by peaks in 1962-63, 1965-66 and 1972-73 ; the peaks in the increase of teachers were in 1965-66 and 1971-72. The growth in private preschool education was fairly slow, with a peak in both preschool children and teachers appearing simultaneously in 1970-71 (Table 2.61). Pupil/teacher ratios, which were greater in the fifties and the sixties in state schools, have started dropping to more satisfactory levels in recent years (less than 30:1 after 1973). Similar developments are observed in private schools (Table 2.61).

Pupil/teacher ratios have been differentiated also by region. So, although at the beginning of the period (1960-61) the ratios were comparatively more favourable in Athens, the situation has been worsening over the years in the country's capital and appearing better in some regions e.g., Epirus, Thessaly, Macedonia and Thrace (Table 2.62).

2.3.2. Primary Education

The number of teachers in primary education has increased steadily in the past 22 years although the number of pupils has remained fairly constant. In state schools the average annual rate was 3 per cent (from 17,956 in 1955 to 29,665 in 1976). The direct result of this increase has been a change in the pupil/teacher ratio in the state schools : from 50 in 1955-56 to 29 in 1976-77 (Table 2.63).

In private schools, the pupil rate of increase was 2 per cent annually, and that of teachers 3.6 per cent. The result of this increase has been that pupil/teacher ratios in private education changed from 30 in 1955 to 25 in 1976 (Table 2.63).

These developments have recently brought Greece closer to other European countries (those of the European Economic Community, plus Portugal and Spain) than in the past (Table 2.64).

Pupil/teacher ratios differ considerably among the country's regions, although the pattern appears to be the same during the whole period. The ratio is higher in Athens, showing continuous concentration of school age children in the capital ; it is lower in the other regions, especially in Crete, the Aegean Islands, Thrace and Epirus,where agricultural and mountainous areas support rather small educational units (Table 2.65).

Almost half of the total number of primary school teachers are women, while in private schools the proportion of women is higher than that of men (Table 2.66).

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1) All teachers in preschool education are women, according to specific regulations of the Ministry of Education.

2.3.3. Secondary Education

The student/teacher ratio at the secondary level is a more complicated index than the one at the lower levels. At that level the ratio indicates class size but also the extent to which specialized subjects are taught by the corresponding specialized personnel. Since specialized subjects at the secondary level are normally taught by university graduates of corresponding fields of specialization, a high student/teacher ratio shows, indirectly, the tendency in small schools to have certain subjects taught by teachers of a related specialty, on an overtime basis.

Secondary education has grown substantially in the last 22 years, both in terms of students and teachers. This has been especially true in state schools where enrolments show an average annual increase of 10 per cent between 1955 and 1976, and the teachers an average annual increase of 14 per cent (Table 2.67). This pattern of expansion has had a favourable effect on student/teacher ratios in the state schools. Great student expansion made the ratio higher at the beginning of the period (1955-1960), but since then the government has responded to this trend by hiring more teachers. As a consequence, student/teacher ratio dropped to 26 in 1976. By contrast, the situation has worsened in private education. Although enrolments, on an average, have increased annually by 6 per cent, the teaching body has decreased by 1.5 per cent[1]. The change is - 0.7 per cent if computed for 1961 and 1976. The result is that the student/teacher ratio increased from 25 in 1961 to 38 in 1976, a development which is exactly the opposite of the one observed in state schools (Table 2.67).

Student/teacher ratios varied between state and private schools and among the country's regions. Only state schools can be discussed for the year 1960-61, since the data on private schools include part-time teachers as well (Table 2.68). So student/teacher ratios ranged from 32 in Athens to 46 in Epirus, which represented the most unfavourable index. The situation was quite different in 1970-71 : student/teacher ratios were quite balanced in the country's regions as far as state schools were concerned (Table 2.68), with the exception of the Athens region. Between 1966 and 1971, enrolments in the Athens state schools increased by 20 per cent while, during the same period, the number of teachers increased by less than 10 per cent.

The situation had changed drastically by 1974-75. Private schools had a much higher student/teacher ratio than state schools (Table 2.68). It ranged from 24 to 47 while that of the state schools was from 21 in the Aegean Islands to 33 in Athens. And, of course, as we saw in Table 2.67, the difference between state and private schools has continued in the same fashion in recent years.

The number of women teachers increased more than that of men between 1960 and 1975 ; by 1975, women constituted 53 per cent of the total teaching body (Table 2.69). The participation of women was higher in private schools at the beginning of the period than in state schools ; by 1975, the situation had been reversed.

The distribution of teachers by age varies considerably among the country's regions. Teachers employed in state schools in Greater Athens are 26 per cent of the total. At the same time, more than 40 per cent of the teachers over 40 years and only 8 per cent of the teachers under 30 years of age are assigned to Athens. Macedonia shows a somewhat similar, although less acute pattern, while the rest of the country's regions appear to have the reverse pattern with a relatively large proportion of younger teachers (Table 2.70). This situation is a direct result of the criteria employed in the assignment of teachers to the various regions ; seniority and rank are quite crucial.

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1) This is due to the fact that in the years 1955-1960 the number of teachers included also part-time teachers.

2.3.4. Technical and Vocational Education[1)]

The structure and teaching practices in technical and vocational schools do not allow for reliable estimates of student/teacher ratios. The main reason for this is that a sizeable proportion of teachers in these schools are part-time. The only available data that are helpful in the examination of the quantitative dimensions of teaching in technical and vocational schools are teaching hours per week[2)]. These have increased drastically in the last twenty years (1956-1976) in absolute numbers as well as in relative terms (Table 2.71). Weekly teaching hours per student have increased from 0.64 in 1956 to 1.31 in 1976, that is they have doubled. This is an important development considering the fact that the numbers of students have increased and the average ratio of students per school has decreased from 135 in 1956 to 84 in 1976. It is clear that those changes have affected technical education, as well as vocational education, with the exception of agricultural education, where the number of students has been reduced (Table 2.71).

The great proportion of teaching hours in technical as well as vocational education (70 per cent in 1970) was devoted to the teaching of theory and only 30 per cent was devoted to laboratories and workshops. It is interesting to note that in agricultural education 60 per cent of the teaching hours was spent on laboratory and workshop type of activities (Table 2.72). The situation did not change significantly in 1976-77 when most of the teaching hours were devoted to theoretical teaching (Table 2.73).

2.3.5. Higher Education[3)]

Higher general education[4)] has expanded rather modestly over the last 22 years in terms of both students and teachers. The average annual rate of increase in students is 0.8 per cent, while that of teachers is 3.1 per cent. The result of these developments has been a continuous reduction in student/teacher ratios (Table 2.74).

On the other hand, university education has registered substantial growth (Table 2.75). The average annual growth in the number of students has been 21.1 per cent ; that of the main teaching staff has been 4.9 per cent, while the rate of increase of all teaching staff has been 9.3 per cent. The ratio of students to the main teaching staff (Table 2.75, column 5) has increased gradually at the beginning of the period and more rapidly in the late sixties and early seventies. This is due to the sharp increase in the number of students at that period. Starting in 1970 the ratio dropped because of a government-initiated increase in the main teaching staff. Student/teacher ratios (column 6, Table 2.75) look better when all teaching staff are considered. This ratio dropped considerably between 1968 and 1976 due to the relatively small increase in the number of students on the one hand, and the comparatively large increase of teaching staff on the other (Table 2.75).

Such student teacher ratios are among the highest when compared to those of some other European countries (Table 2.76).

A more detailed examination of student/teacher ratios by level of teaching staff indicates that, on the average, 155 students "correspond" to one university chair (Table 2.77).

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1) Here data on lower, middle and higher technical and vocational education are included.

2) These are the scheduled teaching hours and not the actual ones.

3) It includes data on higher general and university education. Data on higher technical and vocational education have been included in section 2.3.4.

4) It includes : training institutions for preschool and primary school teachers, teachers of gymnastics and home economics.

The ratio drops to 89 when the main teaching personnel are included and to 16 when all teaching staff are included in the calculations (Table 2.77). The ratios of students to chairholders vary considerably among university and/or university-level higher schools ranging from 344:1 in the Higher School of Political Sciences to 15:1 in the newly-founded University of Thrace (Table 2.78).

When all teaching staff are considered the ratios range from 86:1 in the Higher School of Industrial Studies in Salonica to 3:1 in the Higher School of Agricultural Studies in Athens (Table 2.79). Law schools and social sciences schools[1] have the highest ratios, while schools in the fields of agricultural studies, technology and medicine have the lowest (Table 2.79).

Table 2.61

PRESCHOOL EDUCATION : STUDENT/TEACHER RATIOS
BY TYPE OF SCHOOL, 1955-1976

Year	State			Private		
	Pupils	Teachers	Pupil/ teacher ratio	Pupils	Teachers	Pupil/ teacher ratio
1955-56	25,218	698	36	2,455	114	21
1956	26,018	738	30	2,660	134	20
1957	26,105	741	35	3,805	180	21
1958	31,119	916	34	4,688	209	22
1959	33,579	960	35	5,266	228	23
1960-61	33,916	959	35	6,331	264	24
1961	33,989	848	42	7,921	296	27
1962	35,913	1,018	35	9,183	334	28
1963	40,870	1,174	35	9,396	329	29
1964	42,974	1,273	34	8,264	286	29
1965	43,895	1,302	34	8,358	266	31
1966	50,372	1,526	33	8,863	281	32
1967	54,588	1,687	32	9,427	301	31
1968	56,347	1,732	33	9,914	317	31
1969	71,342	2,259	32	11,542	369	31
1970-71	74,433	2,333	32	12,654	415	31
1971	74,986	2,343	32	16,192	510	32
1972	83,935	2,811	30	17,350	544	32
1973	90,978	3,156	29	17,380	581	30
1974	93,296	3,419	27	16,347	606	27
1975	92,637	3,526	26	15,720	611	26
1976-77	100,874	3,839	26	17,246	665	26

Note : All teachers in preschool education are women.

Sources : 1955-74 : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

1) It includes : Higher School of Economic and Commercial Studies, Higher School of Political Sciences and Higher Schools of Industrial Studies.

Table 2.62

PRESCHOOL EDUCATION : PUPIL/TEACHER RATIOS BY REGION AND TYPE OF SCHOOL 1960-1976

Region	1960-61			1970-71			1976-77		
	Total	State	Private	Total	State	Private	Total	State	Private
Total	33	35	24	32	32	30	26	26	26
Greater Athens	23	34	21	33	42	29	28	32	25
Rest of Central Greece & Euboea	45	55	26	38	39	23	29	28	30
Peloponnesos	37	56	32	35	35	41	30	30	31
Ionian Islands	39	50	25	34	34	38	29	29	30
Epirus	30	30	44	24	24	32	18	18	32
Thessaly	47	52	31	32	32	34	26	26	28
Macedonia	34	34	31	31	31	38	25	25	28
Thrace	37	38	22	27	27	-	20	20	23
Aegean Islands	37	37	36	37	38	32	33	33	27
Crete	37	44	27	31	31	29	29	29	34

Sources : Calculated from data in : (a) N.S.S.G., Statistics of Education of respective years ;
(b) 1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.63

PRIMARY EDUCATION : PUPIL/TEACHER RATIOS BY TYPE OF SCHOOL, 1955-1976

Year	State*			Private*		
	Pupils	Teachers	Pupil/ teacher ratio	Pupils	Teachers	Pupil/ teacher ratio
1955-56	895,626	17,956	50	52,005	1,757	30
1956	884,021	19,011	47	52,708	1,821	29
1957	878,294	19,074	46	58,000	2,160	27
1958	861,750	19,486	44	60,794	2,324	26
1959	839,753	20,761	40	61,408	2,309	27
1960	835,232	20,910	40	60,655	2,341	26
1961	843,825	21,666	39	63,989	2,337	27
1962	849,368	21,993	39	64,726	2,276	28
1963	844,966	23,306	36	66,776	2,352	28
1964	894,673	24,493	37	58,156	2,146	27
1965	902,290	25,246	36	61,366	2,130	29
1966	905,077	26,310	34	63,816	2,214	29
1967	899,877	25,737	35	64,351	2,226	28
1968	885,942	25,926	34	62,353	2,230	28
1969	872,608	25,699	34	65,238	2,429	27
1970	846,690	26,870	32	65,746	2,466	27
1971	835,307	26,674	31	70,235	2,656	26
1972	835,966	25,507	33	73,475	2,705	27
1973	846,327	26,890	32	75,971	2,924	26
1974	854,388	27,543	31	73,460	2,915	25
1975	862,648	28,049	31	73,082	2,945	25
1976	863,851	29,665	29	74,746	3,038	25

Note : * day schools only.

Sources : Calculated from data in : N.S.S.G., (a) Statistics of Education of corresponding years ;
(b) Population Statistics ;
1976-77 : Ministry of Education, Division of General Education.

Table 2.64

PRIMARY EDUCATION : PUPIL/TEACHER RATIOS IN SOME EUROPEAN COUNTRIES

Country	1960	1970	1975
Denmark	31	15	15
France	24	23	23
Germany (F.R.)	30	26	24
Greece	40	31	30
Ireland	35	31	31
Italy	22	22	20
Luxembourg	26	20	19
Netherlands	34	30	29
Portugal	34	34	27
Spain	35	34	29
United Kingdom	24	24	-

Source : World Bank, World Atlas of the Child, 1979

Table 2.65

PRIMARY EDUCATION : PUPIL/TEACHER RATIOS BY REGION AND TYPE OF SCHOOL, 1960-1974

Region	1960-61			1970-71			1974-75		
	Total	State*	Private*	Total	State	Private	Total	State	Private
Total	40	40	26	31	31	27	30	31	25
Greater Athens	42	50	28	36	39	29	37	40	27
Rest of Central Greece & Euboea	41	40	24	31	31	29	30	30	29
Peloponnesos	40	39	25	29	29	30	27	27	26
Ionian Islands	40	39	40	27	27	27	26	26	29
Epirus	39	39	23	26	26	23	22	22	23
Thessaly	44	42	24	31	31	24	29	29	21
Macedonia	41	40	24	32	32	29	32	32	28
Thrace	32	38	22	25	28	22	23	25	21
Aegean Islands	34	33	24	29	29	26	28	29	19
Crete	36	36	23	28	28	22	28	28	25

Note : * Day school only.

Sources : N.S.S.G., Statistics of Education of respective years.

Table 2.66

PRIMARY EDUCATION : TEACHERS BY SEX AND TYPE OF SCHOOL, 1960-1975

Type of school	1960-61		1970-71		1975-76	
	Total	Women (%)	Total	Women (%)	Total	Women (%)
Total	23,251	10,838 (46.6)	29,681	13,909 (47.9)	31,016	14,570 (47.0)
State	20,910	9,418 (45.0)	27,152	12,537 (46.2)	28,046	12,827 (45.7)
Private	2,341	1,420 (60.7)	2,529	1,372 (54.2)	2,967	1,743 (58.7)

Sources : N.S.S.G., Statistics of Education of respective years.

Table 2.67

SECONDARY GENERAL EDUCATION : STUDENT/TEACHER RATIOS BY TYPE OF SCHOOL* 1955-1976

Year	State			Private		
	Students	Teachers	Student/ teacher ratio	Students	Teachers	Student/ teacher ratio
1955-56	175,111	5,039	34	22,019	2,125	10
1956	174,874	5,148	34	23,559	2,283	10
1957	184,304	5,000	37	26,550	2,437	11
1958	192,769	5,148	37	31,073	2,852	11
1959	206,898	5,367	39	34,606	2,949	12
1960-61	217,068	5,640	38	38,067	3,165	12
1961	229,276	6,489	35	42,252	1,663	25
1962	241,394	7,167	34	43,068	1,404	31
1963	250,163	7,868	32	44,037	1,277	34
1964	293,602	9,662	30	40,731	1,318	31
1965	313,645	10,130	31	38,492	1,121	34
1966	326,789	10,978	30	37,936	1,133	33
1967	343,982	10,722	32	40,169	1,747	23
1968	343,754	10,868	32	41,813	1,561	27
1969	354,968	11,157	32	45,335	1,502	30
1970-71	385,518	11,406	34	49,538	1,552	32
1971	404,836	11,871	34	52,172	1,541	34
1972	415,316	13,330	31	55,045	1,605	34
1973	427,787	15,016	28	57,269	1,579	36
1974	444,760	16,060	28	56,263	1,564	36
1975-76	476,265	17,179	28	52,940	1,540	34
Lower	303,107	11,120	27	24,249	643	38
Upper	235,339	9,264	25	28,947	770	38

Note : * Day schools only.

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.68

SECONDARY GENERAL EDUCATION : STUDENT/TEACHER RATIOS
BY REGION AND TYPE OF SCHOOL, 1960-1974

Region	1960-61			1970-71			1974-75		
	Total	State	Private	Total	State	Private	Total	State	Private
Total	31	40	15	35	35	38	29	28	41
Greater Athens	27	46	14	41	42	38	35	33	43
Rest of Central Greece & Euboea	35	38	12	31	31	25	26	26	23
Peloponnesos	37	39	17	32	32	43	27	26	41
Ionian Islands	35	37	-	31	32	-	24	24	-
Epirus	42	46	13	37	37	65	25	25	33
Thessaly	32	42	13	35	34	49	29	29	47
Macedonia	30	38	16	35	35	39	30	29	46
Thrace	36	42	5	34	34	31	29	29	24
Aegean Islands	32	32	12	27	27	15	21	21	26
Crete	33	41	17	33	32	41	26	25	31

Sources : Calculated from data from N.S.S.G., Statistics of Education of respective years.

Table 2.69

SECONDARY EDUCATION : TEACHERS BY SEX AND TYPE OF SCHOOL, 1960-1975

Type of school	1960-61		1970-71		1975-76	
	Total	Women %	Total	Women %	Total	Women %
Total	8,805	3,195 (36.3)	12,958	6,315 (48.7)	18,719	9,952 (53.2)
State	5,640	1,910 (33.9)	11,406	5,623 (49.3)	17,179	9,221 (53.4)
Private	3,165	1,285 (40.6)	1,552	692 (44.6)	1,540	731 (47.5)

Table 2.70

SECONDARY GENERAL EDUCATION : TEACHERS BY REGION, AGE GROUP AND SEX, 1974-75

1. STATE SCHOOLS

Region	Up to 29 years old		30-39		40-49		over 50 years old		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Total	4,697 100.0	3,210 100.0	6,616 100.0	3,478 100.0	3,399 100.0	1,486 100.0	1,348 100.0	413 100.0	16,060 100.0	8,587 100.0
Greater Athens	352 7.5	233 7.3	1,943 29.4	1,174 33.8	1,313 38.6	671 45.1	569 42.2	202 48.9	4,177 26.0	2,280 26.5
Rest of Central Greece & Euboea	756 16.1	546 17.0	680 10.3	319 9.2	258 7.6	92 6.2	120 8.9	34 8.2	1,814 11.3	991 11.5
Peloponnesos	870 18.5	624 19.4	759 11.5	400 11.5	314 9.2	128 8.6	127 9.4	29 7.0	2,070 12.9	1,181 13.7
Ionian Islands	172 3.7	116 3.6	119 1.8	44 1.3	44 1.3	16 1.1	25 1.8	8 1.9	360 2.2	184 2.1
Epirus	333 7.1	202 6.3	251 3.8	92 2.6	86 2.5	31 2.1	47 3.5	10 2.4	717 4.5	335 3.9
Thessaly	450 9.6	298 9.3	583 8.8	252 7.2	176 5.2	56 3.8	62 4.6	10 2.4	1,271 7.9	616 7.2
Macedonia	898 19.1	626 19.5	1,412 21.3	768 22.1	814 23.9	345 23.2	148 11.0	90 21.8	3,372 21.0	1,829 9.6
Thrace	208 4.4	152 4.7	167 2.5	77 2.2	45 1.3	19 1.3	8 0.6	2 0.5	428 2.7	250 2.9
Aegean Islands	363 7.7	221 6.9	276 4.2	116 3.3	147 4.3	47 3.2	69 5.1	14 3.4	855 5.3	398 4.6
Crete	259 6.3	192 6.0	426 6.5	236 6.8	202 5.9	81 5.4	73 5.4	14 3.4	996 6.2	523 6.1

2. PRIVATE SCHOOLS

Total	404 100.0	268 100.0	575 100.0	238 100.0	300 100.0	137 100.0	285 100.0	100 100.0	1,564 100.0	743 100.0
Greater Athens	155 38.4	104 38.8	321 55.8	178 74.8	216 72.0	110 80.3	224 78.6	87 87.0	916 58.6	479 64.5
Rest of Central Greece & Euboea	19 4.7	10 3.7	46 8.0	8 3.4	10 3.3	4 2.9	5 1.7	1 1.0	80 5.1	23 3.1
Peloponnesos	48 11.9	37 13.8	27 4.7	6 2.5	7 2.3	2 1.5	8 2.8	1 1.0	90 5.7	46 6.2
Ionian Islands	-	-	-	-	-	-	-	-	-	-
Epirus	10 2.5	6 2.2	6 1.0	1 0.4	-	-	1 0.3	-	17 1.1	7 0.9
Thessaly	36 8.9	36 13.4	9 1.6	5 2.1	8 2.7	2 1.5	5 1.7	1 1.0	58 3.7	34 4.6
Macedonia	87 21.5	53 19.8	105 18.3	30 12.6	51 17.0	18 13.1	34 11.9	9 9.0	277 17.7	110 14.8
Thrace	18 4.5	8 3.0	31 5.4	4 1.7	4 1.3	-	-	-	53 3.4	12 1.6
Aegean Islands	4 1.0	4 1.5	2 0.3	-	-	-	1 0.3	-	7 0.4	4 0.5
Crete	27 6.7	20 7.5	28 4.9	6 2.5	4 1.3	1 0.7	7 2.5	1 1.0	66 4.2	28 3.8

Source : N.S.S.G., Statistics of Education 1974-75.

Table 2.71

GROWTH OF TECHNICAL AND VOCATIONAL EDUCATION, 1956-1976
(SCHOOLS, STUDENTS, TEACHING HOURS PER WEEK)

Type of School and Year	Number of Schools (1)	Number of registered students (2)	Number of weekly teaching hours (3)	Teaching hours per school (3)/(1)	Teaching hours per student (3)/(2)	Students per school (2)/(1)
ALL SCHOOLS						
1956-57	326	43,943	27,930	86	0.64	135
1960-61	320	49,604	30,991	97	0.62	155
1965-66	349	75,237	59,595	171	0.79	216
1970-71	1,030	107,879	96,457	93	0.89	105
1974-75	1,531	147,799	165,211	108	1.12	97
1976-77	1,856	155,750	204,760	110	1.31	84
A. TECHNICAL						
1956-57	127	25,569	n.a.	-	-	201
1960-61	106	34,430	n.a.	-	-	325
1965-66	216	65,371	48,251	223	0.74	303
1970-71	826	91,609	80,586	98	0.88	111
1974-75	1,234	127,134	140,792	114	1.11	103
1976-77	1,486	129,686	175,600	118	1.35	87
B. AGRICULTURAL						
1956-57	22	970	n.a.	-	-	44
1960-61	15	1,137	n.a.	-	-	76
1965-66	11	607	689	62	1.14	55
1970-71	9	399	896	100	2.25	44
1974-75	8	285	589	74	2.07	36
1976-77	6	269	471	79	1.75	45
C. VOCATIONAL*						
1956-57	177	15,976	n.a.	-	-	90
1960-61	199	14,037	n.a.	-	-	71
1965-66	122	9,259	10,655	87	1.15	76
1970-71	195	15,871	14,975	77	0.94	81
1974-75	289	20,380	23,830	82	1.17	71
1976-77	364	25,795	28,689	79	1.11	71

Note : * Agricultural education is not included

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.72

TECHNICAL AND VOCATIONAL EDUCATION : TEACHING HOURS
BY TYPE OF TEACHING PERSONNEL, 1970-71

A. TECHNICAL

Teacher's Qualifications	Total	Teaching hours by				Public sector and public organi-zation employees	Trained in SELETE
		Men		Women			
		Theoret-ical	Lab. and w/shops	Theoret-ical	Lab. and w/shops		
Total	80,586 (100.0)	51,904 (64.4)	22,790 (28.3)	4,520 (5.6)	1,372 (1.7)	37,581	10,694
National Technical University of Athens	7,512	6,548	585	249	130	3,069	107
University or other Higher Education Institution	26,986	22,918	1,007	2,696	365	14,128	317
Military School	3,121	2,707	414	-	-	2,194	211
Higher Techn. School	12,168	8,953	2,746	354	115	5,434	1,906
Production supervisor's school	20,944	8,582	8,854	1,038	263	9,629	7,499
Other technical or vocational school	9,236	2,032	6,620	125	459	2,953	642
School of home economics	50	12	-	2	36		
Music and drama school	12	12	-	-	-	12	-
Only high school diploma	557	140	357	56	4	153	12
B. VOCATIONAL							
Total	14,975 (100.0)	8,405 (56.1)	1,687 (11.3)	2,807 (18.7)	2,076 (13.9)	5,214	21
C. AGRICULTURAL							
Total	896 (100.0)	368 (41.1)	528 (58.9)	-	-	240	-
ALL TECHNICAL AND VOCATIONAL EDUCATION							
Total	96,457 (100.0)	60,677 (62.9)	25,005 (25.9)	7,327 (7.6)	3,448 (3.6)	43,035	10,715

Source : N.S.S.G., Statistics of Education 1970-71, Technical and Vocational Education.

Table 2.73

TECHNICAL AND VOCATIONAL EDUCATION :
TEACHING HOURS BY TYPE OF TEACHING PERSONNEL, 1976-77

Teacher's Qualifications	Teaching hours by					Public and organi-zations employees	Trained in SELETE
	Total	Men		Women			
		Theoretical	Laboratory & Workshops	Theoretical	Laboratory & Workshops		
1. Total*	177,486 (100.0)	92,546 (52.1)	53,118 (29.9)	23,141 (13.1)	8,681 (4.9)	93,382	39,626
Polytechnic University of Athens	8,053	5,979	1,140	633	301	3,126	1,127
University or other higher education institution	59,806	41,482	1,969	15,441	914	29,370	6,796
Military School	3,608	2,765	743	72	20	2,656	175
Higher technical school	35,873	23,970	8,070	2,819	1,014	21,016	12,971
Production supervisors school	52,085	15,010	31,316	2,706	3,053	31,261	18,050
Other technical or vocational school	14,111	2,379	8,947	834	1,951	5,267	487
Agricultural school (other than the Graduate Agricultural School of Athens)	388	101	204	15	68	75	20
School of home economics	1,401	80	18	273	1,030	239	-
Music and Drama School	1,632	613	604	227	188	270	-
Only high school diploma	529	167	107	121	134	102	-
2. Higher Technical Education	27,274						
All Technical and Vocational Education	204,760						

Note : * Higher Technical Education is not included.

Source : Ministry of Education, Education Statistics, provisional data.

Table 2.74

HIGHER GENERAL EDUCATION (TEACHER TRAINING) : STUDENT/TEACHER RATIOS, 1955-1976

Year (1)	Students (2)	Professors (3)	Student/teacher ratio (4)
1955-56	2,998	167	18
1956	2,625	168	16
1957	2,363	164	14
1958	2,366	175	14
1959	2,531	171	14
1960-61	2,481	185	13
1961	2,440	173	14
1962	3,437	199	17
1963	3,587	175	20
1964	3,773	168	22
1965	3,939	n.a.	n.a.
1966	3,967	n.a.	n.a.
1967	5,202	n.a.	n.a.
1968	3,637	267	14
1969	3,565	179	20
1970-71	3,929	247	16
1971	4,187	202	21
1972	4,279	244	18
1973	4,562	266	16
1974-75	4,839	270	18
1975-76	4,408	248	18
1976-77	3,541	282	13

Sources : N.S.S.G., Statistics of Education of respective years ;
1966-68 : Statistical Yearbook of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.75

UNIVERSITY EDUCATION : STUDENT/TEACHER RATIOS 1956-1975

Year (1)	Students (2)	University main teaching staff (3)	All teaching staff* (4)	(2)/(3)	(2)/(4)
1955-56	16,866	542		31	
1956-57	17,783	570		31	
1957	17,954	583		31	
1958	21,971	598		37	
1959	23,953	597		40	
1960-61	25,658	624		41	
1961	28,042	665		42	
1962	31,995	638		50	
1963	39,824	692		58	
1964	49,532	746		66	
1965	54,261	n.a.		n.a.	
1966	60,624	n.a.		n.a.	
1967	68,236	n.a.		n.a.	
1968	71,259	501	2,010	142	36
1969	72,616	557	2,658	130	27
1970-71	72,269	580	3,161	125	23
1971	70,161	778	3,420	90	21
1972	76,035	966	4,305	79	18
1973	80,041	945	4,746	85	17
1974	92,920	987	5,466	94	17
1975-76	95,385	1,074	5,810	89	16
1976-77	95,017	1,128	6,125	84	16

Note : * It includes "epimelites" and "voithi" also.

Sources : N.S.S.G., Statistics of Education of respective years ;
1966-68 : Statistical Yearbook of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.76

UNIVERSITY EDUCATION : STUDENT/TEACHER RATIOS IN SEVERAL COUNTRIES

Country	Year	Ratio
England	1971	1: 8
Bulgaria	1972	1:13
France	1971	1:19
Denmark	1972	1: 8
Germany (F.R.)	1972	1: 7
Switzerland	1972	1:10
Greece	1972	1:18
Spain	1972	1:14
Italy	1972	1:18
Roumania	1972	1:10
Turkey	1972	1:10
Czechoslovakia	1972	1: 6

Source : Calculations from data in UNESCO, Statistical Yearbook 1974, pp. 300-339

Table 2.77

UNIVERSITY EDUCATION : STUDENT/TEACHER RATIOS BY LEVEL OF TEACHING STAFF, 1975

Level of teaching staff	Number of teaching staff*	Students	Ratio
1. Main teaching staff	1,074	95,385	1: 89
2. All teaching staff	5,810	95,385	1: 16
3. Number of legally established university chairs	856	95,385	1:111
4. Occupied university chairs	614	95,385	1:155

Note : * It includes "epimelites" and "voithi".

Sources : N.S.S.G., Statistics of Education 1975-76
Ministry of Education, General Directorate of University Education.

Table 2.78

UNIVERSITY EDUCATION : RATIO OF LEGALLY ESTABLISHED UNIVERSITY CHAIRS OVER THE NUMBER OF STUDENTS, 1975-76

Educational Institution	Number of legally established university chairs	Number of students	Ratio
1. University of Athens	157	30,008	1:191
2. University of Salonica	279	27,011	1: 97
3. University of Thrace	48	743	1: 15
4. University of Yannena	51	2,793	1: 54
5. University of Patras	73	3,256	1: 45
6. National Technical University of Athens	106	4,950	1: 47
7. School of Economic and Commercial Studies	44	6,124	1:139
8. School of Political Sciences	23	7,903	1:344
9. School of Industrial Studies of Piraeus	23	6,512	1:283
10. School of Industrial Studies of Salonica	18	5,261	1:292
11. School of Agricultural Studies	27	588	1: 22
12. School of Fine Arts	7	236	1: 34
Total	856	95,385	1:111

Sources : a) N.S.S.G., Statistics of Education 1975-76
b) Ministry of Education, General Directorate of University Education.

Table 2.79

UNIVERSITY EDUCATION : STUDENT/TEACHER RATIOS
BY UNIVERSITY SCHOOL, 1975-76

Educational Institution	All teaching staff*	Students	Ratio
University of Athens .	1,743	30,011	1:17
School of Theology	60	628	1:10
School of Law	183	10,433	1:57
School of Medicine	617	4,736	1: 8
School of Dentistry	116	1,170	1:11
School of Philosophy	205	7,474	1:36
School of Science	562	5,570	1:10
University of Salonica	2,133	2,704	1:13
School of Theology	56	663	1:12
School of Law	146	7,109	1:49
School of Medicine	503	3,835	1: 7
School of Dentistry	109	1,013	1: 9
School of Philosophy	201	4,897	1:24
School of Science	393	5,017	1:13
School of Veterinary Sciences	133	702	1: 5
School of Agricultural Studies and Forestry	215	824	1: 4
School of Technology	377	2,951	1: 8
University of Thrace	80	743	1: 9
School of Law	32	474	1:15
School of Technology	48	269	1: 6
University of Yannena	218	2,293	1:10.5
School of Philosophy	98	1,299	1:13
School of Science	120	1,494	1:12
University of Patras	289	3,253	1:11
School of Science	198	2,211	1:11
School of Technology	91	1,042	1:11
National Technical University of Athens	749	4,951	1: 6.6
Other Schools at the University Level			
School of Economic and Commercial Studies	110	6,124	1:56
Higher School of Political Sciences	142	7,913	1:56
Higher School of Industrial Studies of Piraeus	83	6,511	1:78
Higher School of Industrial Studies of Salonica	61	5,258	1:86
School of Agricultural Studies and Forestry	175	588	1: 3
Higher School of Fine Arts	27	236	1: 9

Note : * It includes "epimelites" and "voithi".

Source : Ministry of Education, Education Statistics, provisional data.

Table 2.80

UNIVERSITY EDUCATION AND HIGHER GENERAL EDUCATION :

GROWTH OF STUDENT/TEACHER RATIOS, 1961/62 - 1971/72

Educational Institution	Teaching staff*		%
	1961-63	1971-72	growth
University of Athens	377	1,086	188.0
University of Salonica	200	1,316	558.0
University of Yannena	-	103	-
University of Patras	-	89	-
National Technical University of Athens	58	436	651.7
School of Economic and Commercial Studies	17	70	311.7
School of Political Sciences	16	84	425.0
School of Industrial Studies of Piraeus	31	53	70.9
School of Industrial Studies of Salonica	27	43	59.2
School of Agricultural Studies	18	115	538.8
School of Fine Arts	11	25	127.2
College of Physical Education	19	29	52.6
College of Home Economics	15	12	-20.0
College of Home Economics at Chania	14	16	14.2
Teacher Training College	194	181	- 6.7
Preschool Teacher Training College	10	25	150

Note : * It includes "epimelites" and "voithi".

Sources: N.S.S.G., Statistics of Education of respective years ;

Chapter 2.4

EDUCATIONAL OPPORTUNITY

This chapter presents quantitative characteristics on opportunities for education (i.e., enrolment rates and the participation of various socio-economic groups) in the Greek education system. It should be made clear, however, that educational opportunity is examined here as an internal parameter of the education system and not as a result of its performance. So the indices that are presented reflect the situation within the education system ; they are not an evaluation of the equalizing effects of education upon society.

2.4.1. Enrolment Ratios

In the period 1960-1975, enrolment rates were consistently high at the compulsory education level (up to 1976 primary education only) and increased steadily at all other levels (Table 2.81), especially between 1960 and 1970.

Enrolment rates in primary education are comparable to those of other European countries* (Table 2.82), and in secondary education, to those of selected such countries (Table 2.83).

2.4.2. Participation of Population in the Education System

The rate of participation of the population in the education system is defined as :

$$P_i = \frac{S_{ik}}{pop_k} \cdot 100$$

where P_i : rate of participation at educational level...
S_{ik} : student population at educational level... in the age group
pop_k : population of the country in age group k.

Participation rates by region and/or sex are calculated in a similar fashion.

In preschool education, where overall population participation was quite low in 1960-61, there were sharp regional variations, but no significant differences by sex (Table 2.84). Participation ranged from 2 (Peloponnesos) to 36 (in Macedonia). By 1970-71, overall participation at this level increased considerably (to 30), but regional differences were as sharp, ranging from 14 (Ionian Islands) to 52 (Macedonia) (Table 2.84).

In primary education, participation had by 1960-61 reached the level expected in a compulsory system. Data on state day schools only indicate that 92 children out of 100 in the 7-12 age group were attending primary schools (Table 2.85). (The participation rate

* The differences in the enrolment rates for Greek primary education between Tables 2.81 and 2.82 are due to the fact that rates in Table 2.81 have been calculated by using the age group 7-12 instead of the age group 6-11 for the years 1960 and 1970. The reason for this is that the majority of the population in primary education falls under the 7-12 age group.

would be higher than 92 if figures on private day schools and night schools were considered). In 1970-71, overall participation by region and sex was 96,with small differences ranging from 90.6 (for girls in Thrace) and 98.5 (for girls in Macedonia). It is important to note that Greater Athens did not show one of the highest rates of participation in primary education (Table 2.85).

In contrast, in lower secondary schools Greater Athens showed the highest participation (much higher than the immediately following region) both in 1960-61 and in 1970-71 (Table 2.86). Regional differences ranged from 15.3 (girls in Thrace) to 60.9 (boys in Greater Athens) in 1960-61. By 1970-71, overall participation had increased to 54. By that year, differences by region and sex were less acute than in 1960-61 but they still persisted ; participation ranged between 31 (girls in Thrace) and 65 (girls in Greater Athens) (Table 2.86). It is important to note that the participation of girls was higher than that of boys in Greater Athens, Crete and Macedonia. Also boys had a much higher participation in technical and vocational schools than girls.

Overall participation in upper secondary education was 27 in 1960-61 (compared to 38 in lower secondary in the same year). In this case too there existed considerable regional variations and differences by sex in 1960-61 ranging from 11 (girls in Epirus) to 43.9 (boys in Greater Athens). By 1970-71, the situation appeared better with only small regional and sex differences. In this case, girls were more favoured than boys as far as general education was concerned. Things are reversed when technical and vocational education is included in the estimates.

When this is done, the participation of girls is quite low. There are signs that the situation is changing because recent educational policy has been promoting technical and vocational education and channelling directly students in the technical/vocational direction.

In university education the participation of the 19-23 age group by parents' residence indicated considerable regional differences in 1970-71. If the rate of participation is calculated on the basis of actual population distribution, then the range is from a low 3.7 in Thrace to a high 12.7 in Peloponnesos (column A, Table 2.88). If, however, the figures are adjusted to account for the concentration of university students and army draftees, then the highest rate is in Athens (column B, Table 2.88). Overall participation in university education increased from 9.1 in 1970-71 to 10.7 in 1974-75 (Table 2.88). The lowest and highest rates of participation appeared in the same region in 1974 as in 1970.

2.4.3. Educational Opportunity Within Higher Education

The distribution of students by region of parents' residence, region of birth and present concentration in regions where the universities are located is presented in Table 2.89. Some migration trends of students' families in the direction of Athens can be detected. It is clear that the situation is different when the distribution of students in higher general education is considered. Greater Athens does not get the larger share of such students ; nor in Athens the place of birth or residence of the majority of these students (Table 2.90).

Regional participation in education is not as important as participation by socio-economic groups. In higher education (university and non-university level) there are data which allow for comparisons over time to be made. Participation in higher general and university education is unequal when examined on the basis of father's occupation (Table 2.91). More specifically, students with fathers in professional, administrative, office and commerce occupations have much higher opportunities than students whose fathers are in agriculture, services or blue collar occupations.

In order to assess educational opportunity more clearly, opportunity indices over time are presented in Table 2.92. The indices are calculated as the ratio of the percentage of students with fathers in a certain occupational category over the percentage of males over 45 years old in the same occupational category. In 1956-57, the differences in educational opportunity were acute ; students with fathers in professional and office occupations were much more favoured, especially in comparison to those with fathers in agriculture or blue collar occupations (Table 2.92). The situation changed over time (especially as a result of the reform policies in the mid-60s).

In 1975-76, opportunity indices ranged from 0.52 (agriculture) to 2.96 (office occupations). The distribution of students by field of study and its variations are presented in Table 2.93. Humanities is the only field where all occupational categories are represented almost equally. Law is over-represented by professionals and office personnel, and technology and medicine by the same groups plus managerial personnel. Social sciences, science and teacher training are over-represented by people in agriculture and by blue collar workers. It is apparent that students with fathers in the more elite occupations are concentrated in the more "elite" fields of study, e.g., medicine.

The distribution of students by sex indicates a lower percentage for girls at all levels (Table 2.94) ; this is not true at the general secondary education level since girls constitute a lower percentage of the total population as well. What is clear in Table 2.94 is the high percentage of girls in teacher training ; (more specifically girls are concentrated in preschool teacher training and the colleges of home economics).

The participation of women in university education is much lower than that of men (Tables 2.95, 2.96). In 1960-61, overall participation was 20 per cent and it grew to 38 per cent in 1977-78. Women increased at a much higher rate than men in university education. Still women are concentrated consistently in the fields of study traditionally attended by them. Their participation in technology is still very low (Table 2.96).

Table 2.81

ENROLMENT RATES BY EDUCATIONAL LEVEL AND SEX, 1960, 1970, 1975

Educational Level	1960		1970		1975	
	Total	Girls	Total	Girls	Total	Girls
Preschool	14	13	30	30	33	33
Primary	110	108	107	105	105	104
Secondary	33	28	56	54	64	65
(Including lower and middle technical and vocational)	(39)*	(31)*	(68)	(57)	(80)	(69)
Higher	4**	2**	13	9	18	14

Notes : * it includes all levels of technical and vocational education
** it does not include higher technical and vocational education

Sources : Calculated from N.S.S.G. data in :
a) Statistics of Education of respective years
b) Census, 1961, 1971
c) Statistical Yearbook of Greece 1976.

Table 2.82

PRIMARY EDUCATION : ENROLMENT RATES IN GREECE AND SELECTED COUNTRIES, 1960, 1970, 1975

Country	1960		1970		1975	
	Total	Girls	Total	Girls	Total	Girls
Belgium	109	108	-	-	102	102
Denmark	105	104	97	98	101	103
France	144	143	117	117	111	-
Germany (F.R.)	133	134	129	130	129	128
Greece	105	103	110	107	106	104
Ireland	124	127	120	119	123	123
Italy	113	112	110	108	109	108
Luxembourg	127	133	118	116	119	124
Netherlands	105	104	102	102	100	100
Portugal	131	129	98	96	116	94
Spain	111	116	123	125	115	115
United Kingdom	94	90	111	111	-	-
Yugoslavia	96	91	94	89	97	93

Source : World Bank, World Atlas of the Child, op. cit.

Table 2.83

SECONDARY EDUCATION : ENROLMENT RATES IN GREECE AND SELECTED COUNTRIES, 1960, 1970, 1975

Country	1960		1970		1975	
	Total	Girls	Total	Girls	Total	Girls
Belgium	84	78	-	-	79	79
Denmark	56	44	73	-	84	-
France	48	49	77	77	88	86
Germany (F.R.)	53	48	66	61	70	68
Greece	41	32	69	59	79	66
Irlande	35	35	79	80	61	61
Italy	34	28	60	55	68	63
Luxembourg	37	28	55	53	58	54
Netherlands	76	75	91	80	100	91
Portugal	20	16	57	51	49	80
Spain	23	16	56	48	78	76
United Kingdom	67	65	75	75	-	-
Yugoslavia	34	24	46	42	54	-

Source : World Bank, World Atlas of the Child, op. cit.

Table 2.84

PRESCHOOL EDUCATION : PARTICIPATION OF POPULATION AGED 5-6 IN PRESCHOOL EDUCATION BY REGION AND SEX, 1960-61, 1970-71

Region	1960-61		1970-71	
	Boys	Girls	Boys	Girls
Total	13.8	13.4	29.8	29.6
Greater Athens	11.1	10.1	20.8	19.7
Rest of Central Greece & Euboea	4.0	3.9	21.7	21.5
Peloponnesos	2.0	1.8	14.4	14.1
Ionian Islands	4.7	2.6	13.5	14.4
Epirus	18.6	18.2	51.1	55.3
Thessaly	6.5	5.9	32.2	34.2
Macedonia	36.7	34.4	52.1	51.6
Thrace	14.2	13.2	25.9	26.6
Aegean Islands	6.0	6.0	17.1	16.3
Crete	4.2	3.9	26.2	26.1

Sources : Calculated from N.S.S.G. data in :
a) Statistics of Education, Primary Education 1960-61, 1970-71
b) Census 1961, 1971.

Table 2.85

PRIMARY EDUCATION : PARTICIPATION OF POPULATION
AGED 7-12 IN PRIMARY EDUCATION* BY REGION AND SEX, 1960-61, 1970-71

Region	1960-61		1970-71	
	Boys	Girls	Boys	Girls
Total	92.7	91.7	96.2	95.6
Greater Athens**	65.6	65.8	96.0	93.9
Rest of Central Greece & Euboea	100.0	98.9	97.2	96.2
Peloponnesos	99.7	98.8	94.4	94.6
Ionian Islands	99.3	98.4	94.3	97.9
Epirus	94.9	94.0	94.6	94.9
Thessaly	99.1	98.0	96.5	95.9
Macedonia	100.1	99.5	98.0	98.5
Thrace**	69.3	67.6	93.2	90.6
Aegean Islands	98.2	97.1	95.3	95.5
Crete	98.3	97.5	95.0	96.4

Notes : * State day schools only. Student population under 13 ; actual population 7-12 ;
** A good percentage of student population is enrolled in private schools.

Sources : Calculated from N.S.S.G. data in :
a) Statistics of Education, Primary Education 1960-61, 1970-71
b) Census 1961, 1971 .

Table 2.86

SECONDARY EDUCATION : PARTICIPATION OF POPULATION
AGE 13-15 IN LOWER SECONDARY EDUCATION BY REGION AND SEX, 1960-61, 1970-71

Region	1960-61		1970-71	
	Boys	Girls	Boys	Girls
Total	43.6	31.5	54.3 (64.3)*	53.2 (53.9)*
Greater Athens	60.9	51.0	63.5	65.3
Rest of Central Greece & Euboea	41.3	24.4	49.1	47.4
Peloponnesos	48.3	34.3	55.3	53.4
Ionian Islands	39.0	26.1	46.8	45.0
Epirus	41.8	18.7	46.0	44.3
Thessaly	33.5	19.0	53.0	46.9
Macedonia	37.0	27.6	52.2	52.2
Thrace	21.2	15.3	36.9	31.2
Aegean Islands	37.2	26.0	52.6	45.0
Crete	44.9	34.8	57.5	58.6

Note : * Numbers in parenthesis include technical and vocational education also.

Sources : Calculated from N.S.S.G. data in :
a) Statistics of Education, Secondary Education, 1960-61, 1970-71
b) Census 1961, 1971.

Table 2.87

SECONDARY EDUCATION : PARTICIPATION OF POPULATION AGED 16-18
IN UPPER SECONDARY EDUCATION BY REGION AND SEX, 1960-61, 1970-71

Region	1960-61		1970-71	
	Boys	Girls	Boys	Girls
Total	30.0	23.5	35.8 (50.5)*	38.0 (39.0)*
Greater Athens	43.9	42.1	38.2	43.8
Rest of Central Greece & Euboea	24.1	15.5	29.8	30.0
Peloponnesos	31.0	25.3	36.9	41.9
Ionian Islands	28.5	21.0	38.8	31.8
Epirus	29.6	11.1	36.2	32.7
Thessaly	23.8	13.4	40.7	38.2
Macedonia	24.8	19.0	33.1	36.6
Thrace	13.9	11.6	27.0	23.5
Aegean Islands	27.3	20.4	39.2	32.1
Crete	29.7	24.6	38.1	42.7

Note : * Numbers in parenthesis include students in middle technical and vocational education.

Sources : Calculated from N.S.S.G. data in :
a) Statistics of Education, Secondary Education, 1960-61, 1970-71
b) Census 1961, 1971.

Table 2.88

UNIVERSITY EDUCATION : PARTICIPATION OF POPULATION AGED 19-23
IN UNIVERSITY EDUCATION BY REGION (PARENTS' RESIDENCE) 1970-71, 1974-75

Region	1970-71		1974-75	
	A	B	A	B
Total	9.1	9.1	10.7	10.7
Greater Athens	8.8	12.8	11.7	15.3
Rest of Central Greece & Euboea	7.7	7.3	9.3	8.7
Peloponnesos	12.7	8.7	13.7	9.3
Ionian Islands	11.5	5.9	13.2	6.7
Epirus	10.5	9.2	12.7	11.1
Thessaly	10.0	8.1	12.0	9.8
Macedonia	7.6	8.6	9.7	11.0
Thrace	3.7	4.5	4.5	5.5
Aegean Islands	6.8	4.6	6.9	8.4
Crete	11.9	9.2	12.2	9.4

Notes : A : Calculated from actual population distribution
B : Calculated from population distribution adjusted to cancel the concentration of university students and army draftees.

Sources : Calculated from N.S.S.G. data in :
a) Statistics of Education of respective years
b) Census 1971.

Table 2.89

UNIVERSITY EDUCATION : STUDENTS BY REGION OF BIRTH, PARENTS' RESIDENCE AND EDUCATIONAL INSTITUTION, 1975-76

Region	Students by Region of		
	Parents' Residence	Birth	Educational Institution
Total	95,385	95,385	95,385
Greater Athens	31,970	21,993	56,321
(%)	(33.5)	(23.1)	
Rest of Central Greece & Euboea	7,695	8,995	-
Peloponnesos	9,303	12,042	3,256
Ionian Islands	1,331	1,946	-
Epirus	3,370	4,262	2,793
Thessaly	6,116	7,062	-
Macedonia	17,380	17,766	32,272
Thrace	1,454	1,954	743
Aegean Islands	2,219	3,353	-
Crete	4,081	4,962	-
Abroad	9,931	10,988	-
Not specified	535	62	-

Source : N.S.S.G., Statistics of Education 1975-76.

Table 2.90

HIGHER GENERAL EDUCATION : STUDENTS BY REGION OF BIRTH, PARENTS' RESIDENCE AND EDUCATIONAL INSTITUTION, 1975-76

Region	Students by Region of		
	Parents' Residence	Birth	Educational Institution
Total	4,408	4,408	4,408
Greater Athens	387	237	1,295
(%)	(8.8)	(5.4)	
Rest of Central Greece & Euboea	384	408	174
Peloponnesos	447	488	236
Ionian Islands	61	74	
Epirus	425	457	198
Thessaly	663	670	482
Macedonia	1,092	1,104	872
Thrace	161	183	177
Aegean Islands	230	253	297
Crete	211	220	677
Abroad	340	311	-
Not specified	7	3	-

Source : N.S.S.G., Statistics of Education 1975-76.

Table 2.91

HIGHER GENERAL AND UNIVERSITY EDUCATION :
STUDENT PARTICIPATION BY FATHER's OCCUPATION, 1975-76

Father's Occupation	Students (1)	Economically active population (2)	Students as a percentage of economic active population (3)
Professionals and self-employed	10,549	183,480	5.7
Managerial and administrative	949	19,880	4.8
Office personnel	14,923	244,008	6.1
Commerce and trade	12,636	232,508	5.4
Agriculture	24,613	1,313,336	1.9
Blue-collar workers	22,041	966,488	2.3
Services and military personnel	4,688	238,888	1.9
Total	95,385	3,234,996	2.9

Sources : Column (1) : N.S.S.G., Statistics of Education 1975-76
Column (2) : N.S.S.G., Statistical Yearbook of Greece, 1975
Column (3) : (2) / (3) X 100

Table 2.92

HIGHER GENERAL AND UNIVERSITY EDUCATION : OPPORTUNITY INDICES.
STUDENTS BY FATHER'S OCCUPATION (PERCENTAGES) OVER ECONOMICALLY ACTIVE MALES
OVER 45 YEARS OLD (PERCENTAGES), 1956-1975

Father's Occupation	1956-57	1957-58	1959-60	1961-62	1963-64	1960-70	1971-72	1973-74	1975-76
Professionals and self-employed	7.33	5.74	5.65	5.27	5.16	2.31	2.41	2.37	2.42
Managerial and administrative	2.00	0.89	1.96	0.83	1.89	1.83	1.32	1.19	1.01
Office personnel	5.53	4.09	3.60	3.77	3.90	2.78	2.60	2.77	2.96
Commerce and trade	1.63	1.44	1.48	1.55	1.58	1.65	1.52	1.53	1.54
Agriculture	0.41	0.45	0.48	0.51	0.49	0.61	0.59	0.58	0.52
Blue collar workers	0.37	0.98	0.90	0.95	0.88	0.87	0.92	0.95	1.00
Services and military personnel	0.90	0.82	0.70	0.63	0.65	0.84	1.22	1.06	1.21

Sources : Calculated from data in N.S.S.G.,
a) Statistics of Education of respective years
b) Census 1961, 1971.

Table 2.93

HIGHER EDUCATION : STUDENTS BY FIELD OF STUDY AND FATHER'S OCCUPATION, 1975-76

Father's Occupation	Humanities	Art	Law	Social sciences	Science	Technology	Medicine and pharmacy	Agriculture	Higher general (teacher training)	Total
Professionals and self-employed	1,653 15.7	46 0.4	1,317 12.5	2,294 21.8	1,106 10.5	1,604 15.2	2,178 20.6	178 1.7	173 1.6	10,549 100.0
Managerial and administrative	143 15.1	5 0.5	86 9.1	321 33.8	82 8.6	140 14.8	156 16.4	9 1.0	7 0.7	949 100.0
Office personnel	2,302 15.4	41 0.3	1,617 10.8	4,655 31.2	1,928 12.9	1,741 11.7	2,052 13.8	280 1.9	307 2.0	14,923 100.0
Commerce and trade	1,826 14.5	30 0.2	1,157 9.2	4,302 34.1	1,602 12.7	1,399 11.1	1,751 13.7	230 1.8	339 2.7	12,636 100.0
Agriculture	3,551 14.4	20 0.1	2,439 9.9	9,629 39.1	3,191 13.0	1,084 4.4	1,952 7.9	713 2.9	2,034 8.3	24,613 100.0
Blue collar workers	3,400 15.2	58 0.3	1,829 8.2	8,046 36.0	3,009 13.5	1,965 8.8	2,419 10.8	469 2.1	1,159 5.1	22,354 100.0
Services and military personnel	1,100 17.2	7 0.1	655 10.2	1,982 30.9	759 11.8	748 11.7	872 13.6	107 1.7	179 2.8	6,409 100.0
Not specified	982 13.3	29 0.4	642 8.7	2,843 38.6	753 10.2	534 7.3	1,238 16.8	129 1.8	210 2.9	7,360 100.0
Total	14,957 15.0	236 0.2	9,742 9.8	34,072 34.1	12,430 12.6	9,215 9.2	12,618 12.6	2,115 2.1	4,408 4.4	99,793 100.0

Source : N.S.S.G., Statistics of Education 1975-76

Table 2.94

GIRLS AS A PERCENTAGE OF TOTAL ENROLMENTS
BY EDUCATIONAL LEVEL, 1956-1976

Educational level	Year					
	1956-57	1960-61	1965-66	1970-71	1974-75	1976-77
1. Preschool	47.50	47.69	50.13	48.50	48.62	48.57
2. Primary	47.65	47.68	47.79	47.75	48.03	48.19
3. Secondary	39.03	41.97	41.29	47.66	49.17	49.17
4. Technical-Vocational	22.30	19.63	13.10	15.37	14.70	16.90
a) Lower				5.23	4.64	4.63
b) Middle				24.20	21.22	21.15
c) Higher				28.16	27.06	30.76
5. Higher education						
a) Technical vocational	n.a.	n.a.	n.a.	28.16	27.06	30.76
b) Teacher treaning	43.09	49.05	53.14	48.28	62.57	63.29
6. University education	20.73	23.01	30.45	30.97	35.18	38.62
Total	44.88	44.86	44.72	44.91	45.04	45.45

Sources : N.S.S.O., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Education Statistics, provisional data.

Table 2.95

UNIVERSITY EDUCATION : PERCENTAGE OF GIRLS
BY EDUCATIONAL INSTITUTION, 1960-61, 1970-71, 1978-79

Educational Institution	1960-61	1970-71	1978-79
Total	23.01	30.97	38.68
1. University of Athens	32.48	38.36	48.00
2. University of Salonica	24.46	29.56	38.53
3. University of Yannena	-	41.66	51.35
4. University of Thrace	-	-	37.51
5. University of Patras	-	13.93	18.98
6. National Technical University of Athens	11.24	11.50	15.23
7. School of Economic and Commercial Studies	9.53	21.03	31.37
8. School of Political Sciences	18.17	40.17	46.86
9. School of Industrial Studies of Piraeus	13.64	23.85	28.31
10. School of Industrial Studies of Salonica	17.60	16.18	26.12
11. School of Agricultural Studies	6.44	12.27	26.13
12. School of Fine Arts	37.61	53.93	58.10

Sources : N.S.S.G., Statistics of Education of respective years ;
1978-79 : Ministry of Education, Education Statistics, provisional data.

Table 2.96

UNIVERSITY EDUCATION : PERCENTAGE OF GIRLS
BY FIELD OF STUDY, 1960-61, 1970-71, 1978-79

Field of Study	1960-61	1970-71	1978-79
Total	23.01	30.97	38.68
Humanities	52.77	67.62	76.86
Fine arts	37.61	53.93	58.10
Law	28.47	37.81	41.74
Social sciences	14.75	28.45	38.66
Science	19.61	23.14	28.95
Technology & architecture	11.37	12.46	15.70
Medicine and pharmacy	23.80	25.44	27.81
Agricultural Studies and Veterinary Sciences	5.87	13.83	27.01

Sources : N.S.S.G., Statistics of Education 1960-61, 1970-71
1978-79 : Ministry of Education, Education Statistics, provisional data.

Chapter 2.5.

PERFORMANCE OF THE EDUCATION SYSTEM

This chapter presents some quantitative characteristics of the performance of the education system, such as success rates, number of graduates, education and income, returns on education, costs, availability of infrastructure and the like.

2.5.1. Success rates and graduates

Graduates from all educational levels, except the primary level, have increased substantially in the last 22 years. Primary school graduates have fluctuated slightly at about the same level (Table 2.97). Graduates at the lower secondary school level increased at an average annual rate of 5.7 per cent between 1965 and 1976, and the upper secondary level, 7.9 per cent.

The number of technical and vocational school graduates also grew rapidly at an average annual rate of 11.5 per cent between 1956 and 1976. Between 1967 and 1976 the rate of growth was 11.3 per cent in the lower and middle technical and vocational schools, and 15.6 per cent in the higher schools.

Higher general education has not experienced any significant change. In contrast, university education had the most impressive growth, with an average annual rate of 15.7 per cent (Table 2.97).

The ratio of graduates to total number of registered pupils has increased slowly in primary education and more rapidly in secondary education (Table 2.98). The output of technical and vocational education in relation to the total number of students has remained fairly constant, but in higher general education it has decreased, mainly as a result of the prolongation of studies from two to three years. The output of university education dropped in the middle 60s, when specific government policies resulted in a substantial increase in the number of incoming students, but it has risen ever since (Table 2.98).

Primary school pupils have good success rates, especially as they move from the lower to the upper grades (Table 2.99). It is important to note :

a) that students in day schools do better than students in night schools (as expected) ;
b) that students in state schools do better than students in private schools ; and
c) that girls do better than boys (Table 2.99).

The situation in secondary general education appears to be similar to that in primary education, the differences between boys and girls being of a larger magnitude (Table 2.100). Girls do better than boys in technical and vocational education as well. The overall performance of students appears to be better in the higher technical and vocational schools, with lower schools following (Table 2.101).

Pass rates (the proportion of successful over registered students) by level of education show that primary schools are the most efficient. (Table 2.102). Secondary general schools follow immediately after, then come higher, lower, and middle technical and vocational schools,in that order (Table 2.102).

The proportion of graduates from secondary general education over those from primary is 0.45, ranging from 0.64 in Athens to 0.31 in Thrace (Table 2.103). If middle technical and vocational education were included in secondary, the proportion would be 0.57. Within technical and vocational education, and in all three levels, the largest number of graduates came from technical schools (Table 2.104).

Recent policies have put greater emphasis on the growth of higher technical education. Therefore, data on the number of graduates from KATEEs are only indicative and not conclusive (Table 2.105).

In higher general education, which has a relatively long history of existence, the situation is more settled. With the exception of preschool teacher colleges the percentage of students who repeated a year is fairly low (Table 2.106). The percentages of graduates appear to be satisfactory for preschool and primary school teacher training colleges. The smaller proportion of graduates of physical education institutions is due to the longer course of studies in these schools.

The situation is more complicated in the universities. In these institutions, students registered more than once in the same year of studies form a considerable percentage of the total number of registered students, with the exception of the National Technical University of Athens and the University of Patras (Table 2.107). Compared to the majority of universities the proportion is smaller in the School of Industrial Studies in Salonica and significantly larger in the School of Agricultural Studies in Athens.

It is interesting to note that this latter school awarded the largest proportion of doctoral degrees (as a percentage of the numbers of graduates). The University of Athens also shows that 4.1 per cent received a doctoral degree (Table 2.107), but in this case the overwhelming majority of doctorates was awarded by the Faculty of Medicine (see also Table 2.108).

Excluding the newly-founded universities (Thrace, Ioannina, and maybe Patras), it is safe to say that all the rest award a small number of doctoral degrees. Even though it is a fairly new institution, the University of Yannena presents a picture which is comparable to the others in the percentage of graduates and number of doctoral degrees (Table 2.107).

Table 2.97

GRADUATES BY EDUCATIONAL LEVEL, 1956-1976

Year	Primary Education	Secondary Education		Technical and Vocational		Higher general education	University Education
		3rd grade	6th grade	Lower and Middle	Higher		
1956-57	121,113	n.a.	20,853	10,317*		1,500	3,338
1957	146,143	n.a.	20,122	10,207*		1,184	3,618
1958	145,484	n.a.	18,470	10,052*		1,150	3,727
1959	139,467	n.a.	18,191	10,297*		1,277	3,910
1960-61	133,509	n.a.	19,816	11,101*		1,371	3,913
1961	132,796	43,224	22,709	12,384*		1,077	4,098
1962	137,905	43,128	24,799	10,267*		1,515	4,330
1963	138,404	41,642	28,175	11,272*		1,727	4,389
1964	133,540	50,030	32,069	13,541*		1,722	4,615
1965	137,102	53,400	34,117	13,312*		1,726	4,624
1966	139,221	58,899	33,506	11,595	446	317**	5,002
1967	143,274	53,568	33,879	13,863	1,735	2,609	6,151
1968	144,161	59,814	37,844	15,898	1,338	1,637	7,773
1969	163,490	62,486	42,209	16,570	1,760	1,225	7,983
1970-71	149,373	65,560	40,835	19,326	1,708	1,342	8,524
1971	144,876	64,477	44,141	22,349	2,067	1,579	11,482
1972	139,907	78,929	47,578	23,172	2,074	1,643	13,996
1973	139,114	76,956	49,183	25,441	2,250	1,712	13,049
1974	139,578	83,953	52,097	28,657	3,147	2,075	14,574
1975	142,867	83,756	64,610	28,432	3,087	1,719	13,793
1976-77	147,959	87,123	63,675	29,505	4,447	n.a.	n.a.
				1976-77 total : 33,952			

Notes : * Graduates of higher vocational education have been included.
** Teacher colleges have no graduates in 1966-67 due to the prolongation of their studies.

Sources : N.S.S.G., Statistics of Education of respective years ;
1976-77 : Ministry of Education, Statistics of Education, provisional data.

Table 2.98

RATIO OF GRADUATES OVER THE NUMBER OF REGISTERED STUDENTS, 1956-1976

Year	Primary	Secondary		Technical and Vocational		Higher general education	University Education
		Lower	Upper	Lower and Middle	Higher		
1956-57	0.13	0.10		0.23		0.57	0.19
1960-61	0.14	0.07		0.20		0.52	0.15
1965-66	0.14	0.22	0.25	0.18		0.46	0.08
1970-71	0.16	0.23	0.23	0.20	0.18	0.34	0.12
1975-76	0.15	0.26	0.27	0.21	0.18	0.39	0.14
1976-77	0.16	0.27	0.27	0.22	0.18	n.a.	n.a.

Sources : Tables 2.15 and 2.75.

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Table 2.99

PRIMARY EDUCATION : NUMBERS OF REGISTERED, ATTENDING AND SUCCEEDING PUPILS BY TYPE OF SCHOOL AND SEX, 1975-76

Type of school and status of students	Total	Female	Grades											
			1st		2nd		3rd		4th		5th		6th	
			Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
All Schools														
- Registered at the end of the school-year	923,123	450,769	163,401	78,287	161,219	77,608	162,051	78,198	156,465	75,194	150,278	72,440	143,709	69,042
- enrolled more than once in the same grade	26,860 (2.9)	10,592 (2.5)	12,171	5,047	5,550	2,164	4,420	1,715	2,197	760	1,807	616	715	290
- sat for the examination	934,049 (99.7)	449,297 (99.7)	162,533	77,891	160,840	77,434	161,715	78,031	156,089	75,018	149,662	72,143	143,210	68,780
- passed	907,135 (96.8) (96.8)	438,480 (97.3) (97.6)	149,647 (91.6) (92.1)	72,487 (92.6) (93.1)	155,035	75,067	157,313	76,292	154,200 (98.6) (98.9)	74,377 (98.9) (99.1)	148,073	71,618	142,867 (99.4) (99.8)	68,639 (99.4) (99.8)
State day-schools														
- Registered at the end of the school-year	862,648	416,239	148,181	71,050	147,465	71,100	148,996	72,100	144,453	69,668	139,557	67,533	133,996	64,788
- enrolled more than once in the same grade	23,448	9,101	10,927	4,499	4,882	1,871	3,845	1,455	1,810	613	1,453	468	531	195
- sat for the examination	860,924	415,464	147,649	70,825	147,241	71,001	148,806	72,004	144,259	69,593	139,220	67,383	133,749	64,658
- passed	837,185 (97.0) (97.2)	406,028	135,978	65,972	142,045	68,920	144,983	70,520	142,727	69,096	137,944	66,964	133,508	64,556
State night-schools														
- Registered at the end of the school-year	943	183	45	14	59	18	59	13	143	17	256	50	381	71
- enrolled more than once in the same grade	156	37	49	2	15	4	9	-	26	4	43	9	44	18
- sat for the examination	861	162	44	13	51	16	52	10	123	13	243	45	348	65
- passed	774 (82.1) (90.0)	145	35	12	45	15	45	7	118	12	213	41	318	58
Private day-schools														
- Registered at the end of the school-year	73,082	34,267	15,149	7,218	13,682	6,483	12,975	6,083	11,818	5,493	10,348	4,838	9,110	4,152
- enrolled more than once in the same grade	3,221	1,447	1,224	545	653	289	565	260	359	143	297	136	123	74
- sat for the examination	71,937	33,605	14,814	7,048	13,536	6,411	12,838	6,015	11,665	5,397	10,126	4,701	8,958	4,033
- passed	68,888 (94.5) (95.8)	32,249	13,621	6,502	12,933	6,126	12,268	5,763	11,318	5,256	9,850	4,600	8,898	4,002
Private night-schools														
- Registered at the end of the school-year	450	80	26	5	13	7	21	2	51	16	117	19	222	31
- enrolled more than once in the same grade	35	7	1	1	-	-	1	-	2	-	14	3	17	3
- sat for the examination	327	66	26	5	12	6	19	2	42	15	73	14	155	24
- passed	288	58	13	1	12	6	17	2	37	13	66	13	143	23

Source : N.S.S.O., Statistics of Education, 1975-76

Table 2.100

SECONDARY GENERAL EDUCATION : NUMBERS OF REGISTERED, ATTENDING AND SUCCESSFUL STUDENTS BY TYPE OF SCHOOL AND SEX, 1975-76

Type of school and grade	Registered		Sat for the examination		Passed	
	Total	Girls	Total	Girls	Total	Girls
All Schools	547,016	269,563	533,446	264,872	484,976	246,548
1st grade	117,371	56,171	114,971	55,268	100,847	50,194
2nd "	103,357	49,924	101,183	49,173	90,389	45,150
3rd "	93,280	45,285	91,075	44,511	83,756	41,679
4th "	86,405	43,155	83,110	42,192	74,828	38,865
5th "	75,294	38,642	73,253	37,836	69,145	36,148
6th "	69,154	35,995	68,018	35,538	64,610	34,220
State day schools	476,265	240,871	467,299	237,158	422,949	219,892
1st grade	108,043	52,014	106,021	51,199	92,253	46,203
2nd "	92,460	45,337	90,848	44,699	80,520	40,796
3rd "	80,422	40,383	78,952	39,725	72,124	36,982
4th "	73,447	38,079	71,489	37,356	63,844	34,168
5th "	63,365	33,645	62,088	33,064	58,362	31,475
6th "	58,528	31,413	57,901	31,115	55,846	30,268
State night schools	10,482	1,929	8,087	1,598	6,924	1,404
1st grade	758	172	577	144	498	129
2nd "	1,403	255	1,072	214	870	180
3rd "	2,122	317	1,656	254	1,402	220
4th "	2,369	399	1,542	290	1,217	241
5th "	1,641	338	1,323	283	1,173	251
6th "	1,172	232	1,006	204	947	191
Private day schools	52,940	25,622	51,892	25,152	49,491	24,361
1st grade	8,045	3,884	7,934	3,836	7,681	3,774
2nd "	8,635	4,183	8,514	4,131	8,289	4,051
3rd "	9,482	4,421	9,414	4,396	9,223	4,348
4th "	9,266	4,499	8,997	4,405	8,742	4,323
5th "	9,010	4,450	8,766	4,318	8,568	4,255
6th "	8,393	4,185	8,158	4,066	6,879	3,610
Private night schools	7,329	1,141	6,168	964	5,612	891
1st grade	525	101	439	89	415	88
2nd "	829	149	749	129	710	123
3rd "	1,254	164	1,053	136	1,007	129
4th "	1,323	178	1,082	141	1,025	133
5th "	1,278	209	1,076	171	1,042	167
6th "	1,061	165	953	153	938	151

Source : N.S.S.O., Statistics of Education 1975-76

Table 2.101

TECHNICAL AND VOCATIONAL EDUCATION : NUMBERS OF REGISTERED, ATTENDING AND SUCCESSFUL STUDENTS BY TYPE OF SCHOOL AND SEX, 1975-76

Level and type of education	Registered students		Sat for the examinations		Passed		Graduates	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls
A - Higher								
Total	17,453	4,992	n.a.	n.a.	n.a.	n.a.	3,087	984
Technical	11,642	2,671	n.a.	n.a.	n.a.	n.a.	1,317	234
Vocational	5,811	2,321	5,349	2,228	5,011	2,206	1,770	750
(% of registered)			(92.0)	(96.0)	(86.2)	(95.0)		
(% of those who sat for the examination)			(100.0)	(100.0)	(93.7)	(99.0)		
B - Middle								
Total	72,472	14,755	56,182	12,168	49,474	11,257	17,160	606
(% of registered)	(100.0)	(100.0)	(77.5)	(82.5)	(68.3)	(76.3)		
(% of those who sat for the examination)			(100.0)	(100.0)	(88.1)	(92.5)		
Technical	55,503	6,863	42,028	5,355	37,006	4,931	5,612	981
Vocational	16,969	7,892	14,154	6,813	12,378	6,326	939	366
C - Lower								
Total	60,119	2,607	50,824	2,290	44,663	2,187	11,272	756
(% of registered)	(100.0)	(100.0)	(84.5)	(87.8)	(74.3)	(83.9)		
(% of those who sat for the examination)			(100.0)	(100.0)	(87.9)	(95.5)		
Technical	58,811	1,439	49,651	1,220	43,529	1,152	10,790	329
Vocational	1,308	1,168	1,173	1,070	1,134	1,035	482	427

Source : N.S.S.G., Statistics of Education 1974-75

Table 2.102

PASS RATES BY LEVEL OF EDUCATION (NUMBERS OF SUCCESSFUL STUDENTS OVER THE NUMBER OF REGISTERED STUDENTS) 1956-1975

Year	Primary		Secondary		Technical and Vocational		
	1st-5th grades	6th grade	1st-5th grades	6th grade	Lower	Middle	Higher*
1956-57	n.a.	97.6	n.a.	81.4	n.a.	n.a.	n.a.
1960-61	n.a.	98.1	n.a.	78.8	n.a.	n.a.	n.a.
1965-66	n.a.	98.5	79.8	88.8	n.a.	n.a.	n.a.
1970-71	93.0	98.8	81.8	87.4	75.0	74.8	77.5
1974-75	95.9	99.3	89.1	93.1	75.9	69.5	88.4*
1975-76	96.3	99.4	88.1	92.6	74.3	68.3	86.2

Note : * It includes only higher vocational education

Sources : Calculated from data in N.S.S.G., Statistics of Education of respective years.

Table 2.103

SECONDARY EDUCATION GRADUATES AS A PROPORTION OF PRIMARY EDUCATION GRADUATES, 1975-76

Region	Secondary general education graduates (1)	Primary education graduates	Proportion
Greece	64,610	142,867	0.45
Greater Athens	24,734	38,500	0.64
Rest of Central Greece & Euboea	5,492	17,118	0.32
Peloponnesos	6,154	15,976	0.39
Ionian Islands	939	2,921	0.32
Epirus	1,993	5,381	0.37
Thessaly	4,870	11,055	0.44
Macedonia	13,424	33,464	0.40
Thrace	1,492	4,826	0.31
Aegean Islands	2,248	6,156	0.37
Crete	3,264	7,470	0.44
	Middle technical and vocational education graduates (2)	Primary education graduates	Proportion
Greece	17,160	142,867	0.12
Total (1)-(2) Secondary level	81,770	142,867	0.57

Source : N.S.S.G., Statistics of Education 1975-76.

Table 2.104

TIME TRENDS IN TECHNICAL AND VOCATIONAL EDUCATION, 1956-1977

(SCHOOLS, REGISTERED STUDENTS, GRADUATES)

Type of school and Year	Number of schools	Number of registered students (1)	Number of graduates (2)	Proportion (2)/(1)
All schools				
1956-57	326	43,943	9,757	0.22
1960-61	320	49,604	10,854	
1965-66	349	75,237	13,169	0.17
1970-71	1,030	107,879	20,949	
1974-75	1,531	147,799	31,831	
1976-77	1,856	155,750	33,952	0.22
A. Technical				
1956-57	127	25,569	5,753	0.22
1960-61	106	34,430	6,199	
1965-66	216	65,371	9,275	0.14
1970-71	826	91,609	13,976	
1974-75	1,234	127,134	23,877	0.19
1976-77	1,486	n.a.		
B. Agricultural				
1956-57	22	970	585	0.60
1960-61	15	1,137	698	
1965-66	11	607	287	0.47
1970-71	9	399	164	
1974-75	8	285	139	
1976-77	6	269	149	0.55
C. Vocational				
1956-57	177	15,976	3,419	0.21
1960-61	199	14,037	3,957	
1965-66	122	9,259	3,607	0.38
1970-71	195	15,871	6,809	
1974-75	289	20,380	7,815	0.38
1976-77	364	n.a.	10,423	

Sources : N.S.S.G., Statistics of Education of respective years.

Table 2.105

CENTRES OF HIGHER TECHNICAL EDUCATION (KATEE'S) :
REGISTERED STUDENTS AND GRADUATES BY FIELD OF STUDY, 1974-1976

Field of Study	1975-76			1976-77		
	Registered		Graduates	Registered		Graduates
	First Semester	Second Semester		First Semester	Second Semester	
Engineering technology	5,836	5,446	-	6,892	4,870	142
(% of registered in the first semester)	(100.0)	(93.3)		(100.0)	(70.7)	(2.1)
Food technology	527	555	-	932	1,087	46
(% of registered in the first semester)	(100.0)	(105.3)		(100.0)	(116.6)	(4.9)
Business management	1,972	1,362	109	2,388	4,198	132
(% of registered in the first semester)	(100.0)	(69.1)	(5.5)	(100.0)	(175.8)	(5.5)
Paramedical	1,650	1,486	53	1,911	2,268	11
(% of registered in the first semester)	(100.0)	(90.1)	(3.2)	(100.0)	(118.7)	(0.6)
Total	9,985 (100.0)	8,849 (88.6)	162	12,063 (100.0)	12,423 (103.0)	331 (2.7)

Source : Ministry of Education, General Directorate of Technical and Vocational Education.

Table 2.106

HIGHER GENERAL EDUCATION : NUMBERS AND STATUS OF STUDENTS, 1975-76

Institution of higher general education	Registered students	Students registered more than once in the same year of study	Graduates
Total	4,408	100	1,719
(% of registered)	(100.0)	(2.3)	(39.0)
Academy of physical education, Athens	377	14	72
(% of registered)	(100.0)	(3.7)	(19.1)
Academy of physical education, Salonica	254	10	57
(% of registered)	(100.0)	(3.9)	(22.4)
College of home economics	230	6	-
(% of registered)	(100.0)	(2.6)	
College of home economics Chania	152	8	-
(% of registered)	(100.0)	(5.3)	
Teacher colleges	2,258	51	1,081
(% of registered)	(100.0)	(2.3)	(47.9)
Preschool teacher colleges	1,137	11	509
(% of registered)	(100.0)	(9.6)	(44.8)

Source : N.S.S.G., Statistics of Education, 1975-76.

Table 2.107

UNIVERSITY EDUCATION : NUMBERS AND STATUS OF STUDENTS, 1975-76

Universities	Registered students	Students registered more than once in the same year of study	Graduates	Received post-graduates diploma	Received a doctoral degree
Total	95,385	10,152	13,793	107	308
(% of registered)	(100.0)	(10.6)	(14.5)		
(% of graduates)				(0.8)	(2.2)
1. University of Athens	30,008	2,633	4,759	60	195
(% of registered)	(100.0)	(8.8)	(15.9)		
(% of graduates)				(1.3)	(4.1)
2. University of Salonica	27,011	3,356	4,063	47	80
(% of registered)	(100.0)	(12.4)	(15.0)		
(% of graduates)				(1.2)	(2.0)
3. University of Thrace	743	6	-	-	-
(% of registered)	(100.0)	(0.8)			
(% of graduates)					
4. University of Yannena	2,793	197	367	-	8
(% of registered)	(100.0)	(7.0)	(13.1)		
(% of graduates)					(2.2)
5. University of Patras	3,256	156	333	-	2
(% of registered)	(100.0)	(4.8)	(10.2)		
(% of graduates)					(0.6)
6. National Technical University of Athens	4,950	227	681	-	14
(% of registered)	(100.0)	(4.6)	(13.8)		
(% of graduates)					(2.1)
7. School of Economic and Commercial Studies	6,124	847	946	-	-
(% of registered)	(100.0)	(13.8)	(15.4)		
(% of graduates)					
8. School of Political Sciences	7,903	1,092	1,116	-	-
(% of registered)	(100.0)	(13.8)	(14.1)		
(% of graduates)					
9. School of Industrial Studies of Piraeus	6,512	739	902	-	-
(% of registered)	(100.0)	(11.3)	(13.9)		
(% of graduates)					
10. School of Industrial Studies of Salonica	5,261	805	431	-	2
(% of registered)	(100.0)	(15.3)	(8.2)		
(% of graduates)					(0.5)
11. School of Agricultural Studies	588	64	168	-	7
(% of registered)	(100.0)	(10.9)	(28.6)		
(% of graduates)					(4.2)
12. School of Fine Arts	236	30	27	-	-
(% of registered)	(100.0)	(12.7)	(11.4)		

Source : N.S.S.G., Statistics of Education, 1975-76

Table 2.108

GENERAL HIGHER AND UNIVERSITY EDUCATION :
GRADUATES BY FIELD OF STUDY, 1955-1975

Field of Study	1955-56	1960-61	1965-66	1970-71	1975-76
Humanities	432	742	670	1,251	1,796
(% of registered)	(16.4)	(23.2)	(10.7)	(15.1)	(12.0)
Fine arts	19	24	47	52	27
(% of registered)	(18.0)	(22.0)	(16.7)	(19.5)	(11.4)
Law	518	603	845	1,228	1,676
(% of registered)	(19.7)	(14.8)	(8.9)	(12.9)	(17.2)
Social sciences	765	1,195	1,066	1,774	4,425
(% of registered)	(16.8)	(14.9)	(7.2)	(7.9)	(13.0)
Science	345	313	667	1,228	2,424
(% of registered)	(20.1)	(11.6)	(8.4)	(11.5)	(17.0)
Technology and architecture	224	326	510	949	1,196
(% of registered)	(17.1)	(13.8)	(11.2)	(16.2)	(13.0)
Medicine and pharmacy	553	578	658	1,481	1,701
(% of registered)	(16.6)	(14.2)	(8.3)	(12.7)	(15.8)
Agricultural studies and Veterinary sciences	176	100	161	549	548
(% of registered)	(33.2)	(8.9)	(5.3)	(15.2)	(25.9)
General higher education	1,436	1,371	1,726	1,343	1,719
(% of registered)	(47.9)	(51.9)	(46.2)	(34.2)	(39.0)
Total	4,468	5,252	6,350	9,867	15,512
	(22.5)	(18.6)	(10.9)	(12.9)	(15.5)
University education	3,032	3,881	4,624	8,512	13,793
	(18.0)	(15.1)	(8.5)	(11.8)	(14.5)

Sources: N.S.S.G., Statistics of Education of respective years, and Table 2.50.

Part Three

THE RECENT REFORMS

Chapter 3.1

THE REFORM OF GENERAL EDUCATION : LAW 309/1976

One crucial area in the reform movement of the past decades has all along been the structure, content and orientation of the pre-university level of general education, which, until recently, has consisted of kindergartens, six-year primary (elementary), and six-year secondary schools. Not surprisingly, this general system of schooling was the first target of the reform policies of the present government immediately after it was voted into power in 1974.

The Formulation of the General Education Policy

The first draft of the law-plan "On the Organization and Administration of General Education", together with its "Prefatory Memorandum", was made public in the spring of 1975. It was the distilled outcome of special committees and work groups consisting of educational experts, university professors and officials of the Ministry of Education. In the summer and fall the law-plan was discussed by interested groups (e.g., the Federation of Secondary School Personnel) and by the press, and after some revisions it was taken up by the appropriate parliamentary committee in November 1975. It was introduced to the entire Voule (Parliament) for debate and action on 5 April 1976 and it was published in the government gazette as Law 309 on 30 April 1976. In the interim period, discussion of the various provisions of the Bill continued with increased vigor, and an important conference, chaired by the Prime Minister himself, was held at the end of January and the beginning of February 1976. In addition to the Prime Minister, the participants of this conference included the Minister of Education, the two Under-Secretaries for Education, the presidents of the three major Greek Universities (Athens, Salonica and the National Technical University), the presidents of the two teacher unions (for elementary and secondary school personnel), the chairman of the Parliamentary Committee on Education, the chief educational spokesmen for the official party of opposition, a representative of private education, and a university professor.

The purpose of the conference was, in the words of the Prime Minister, to find a "correct, objective, just and national solution to the elusive educational problem". Accordingly, all aspects of the law-plan were discussed together with certain basic principles underlying a reconstructed education system, and the major policy guidelines were reaffirmed.

The law-plan (Bill) on general education and Law 309/1976 : As it finally evolved and was introduced into Parliament, the law-plan on general education provided, among other things, an organizational structure consisting of :

a) a six-year compulsory elementary school (ages 6-12), followed by
b) a compulsory unselective three-year gymnasium (ages 12-15), followed by
c) a highly selective three-year general lyceum (ages 15-18).

In addition, the Bill stipulated : (a) that the language of instruction at all levels of general education be the "neohellenic" i.e. the demotike ; and (b) that the curriculum include elements of the democratic organization of the State, technological subjects and educational and vocational orientation.

The Rationale of the New General Education Policy

Also see the Introduction "Educational Reforms and Policy Trends" and Chapter 3.3 "The Reform of Technical and Vocational Education : Law 576".

As indicated in the Introduction, educational reform in general was justified on the twin principles of democratization and modernization. It was believed that social, economic and educational changes demanded adjustments in the school system to make it more efficient and more in line with the country's goals of development and modernization. This also implied making the system more democratic. More specifically, the policy framework embodied in Law 309 was based on the following avowed considerations :

a) The raising of the school-leaving age (ROSLA), which was a constitutional mandate (Article 16 of the Greek Constitution adopted in 1975) and an important precondition for the aforementioned goals of democratization and modernization. Compared to other Western societies, especially those of the European Economic Community, Greece had the fewest years of compulsory schooling (6 compared to generally 9). ROSLA was also felt to be necessary for the cultural development of the country, the expansion of opportunities, particularly among the people in rural areas and for greater economic efficiency.

b) Selection through examinations at the end of compulsory schooling (age 15) and the reorganization of upper secondary education into different types of schools for different purposes (e.g. the general lycea for preparation into AEIs), would deflate the increasing bulge of aspirants for admission into the universities and other post-secondary institutions. At the same time, they would alleviate the problems of under-employment and psychological frustrations. Such arrangements, according to the Prefatory Memorandum, would channel "the bulk of the student population, who are unable to continue towards higher studies... in the direction of the growing new technical vocations, which ensure a comfortable and respectable life". In this way, the Memorandum continued, "a barrier could be erected to prevent the uncontrolled production of graduates of six-year gymnasia", thus alleviating the problem of unemployed graduates, and decreasing the pressure for further education.[1)]

In this connection it is relevant to bear in mind that official pronouncements on general education at this time (1975-1976) expressed only one dimension of the government reform programme that was envisaged. Another major component of that programme was a reorganization of technical and vocational education which was embodied in Law 576 enacted a year after the general education law under discussion here. The new technical education policy is analyzed more fully in next chapter. But it is pertinent to point out here that the aforementioned objectives of government policy (relief of pressure for entrance into AEI's, decrease in unemployment among secondary school graduates, increase in individual and social well-being, etc.) could be attained if a substantial proportion of students who wanted to continue their education after the age of 15 were allocated into technical and vocational schools.

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1) Prefatory Memorandum on the Law-Plan "On the Organization and Administration of General Education", 12 May, 1975, p. 2.

c) Related to the above was a concern to make the education system more efficient in the sense of a type of reorganization and selection that would consider the social and economic needs of a modernizing society. This is a theme that has been raised on several occasions and in different parts of this report.

d) One basic undisputed belief that has pervaded public opinion throughout the period under consideration, indeed at all reformist periods in modern Greek history, has been that Greek education must remain rigorously selective, especially after the compulsory stage. At the Prime Minister's conference all participants favoured stringent examinations as a mechanism for selection into, or elimination from, the lyceum and the universities, and the lyceum itself as a highly selective school for those who were assessed to be capable of entering AEIs. Those who passed the set examinations were considered "capable" of continuing. Those who "failed" would be eliminated or could turn towards non-university education.

It is important to stress the selective and credentialling role which examinations are called upon to perform in Greek education and a fortiori in the Greek occupational and social structure. Such a policy, according to official opinion, is dictated by several factors, e.g. (i) the desirability of maintaining control over educational standards, i.e., ensuring the attainment of certain levels of knowledge which, among other things, are held indispensable for further education and for professional competence ; (ii) the need to screen the intellectually most capable (the talented) for the few places that are of necessity available in the universities and other higher institutions ; and (iii) the demands of educational efficiency as well as social equity, i.e. allocating students into schools of different types and purposes on the basis of objective criteria of achievement.

e) By general agreement, one of the most significant aspects of the reform of general education was the language policy. In essence this meant the dethronement of katharevousa (the pure form) as the official language of instruction in the schools and the establishment of demotike (the popular form).

It should be remembered that the so-called "language question" had been a source of bitter social, political and educational conflicts in modern Greek history. A concentration of factors, e.g., for example, a unique cultural-cum-linguistic tradition, a long period of alien occupation, a nation-state built on disparate "autochthonous", i.e. local, and heterochthonous (from the diaspora) institutions and constantly vulnerable to foreign influences, and an education system that sought to combine borrowed Western concepts and models with traditional indigenous Greek elements, had conspired to making the schools in general, and the language question in particular, an arena in which different vested interests have vied for influence and power. They had also helped to establish the katharevousa as the official language of the State and of instruction in the schools. Efforts to introduce the demotike into the schools ran against considerable educational and political opposition. This inhibited efforts at substantive reform and caused considerable hardship in the general education process.

Among educational reformers, the "language question" was not merely an issue over what form of Greek should be taught in the schools. It represented basic differences in Greek social and educational philosophy, indeed world outlook (Weltanschauung). The introduction of the modern Greek language* would help open up new cultural and intellectual

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* The modern Greek language is defined as the demotike language as it has been developed by the Greek people and recognized writers without idiomatic extremes.

vistas, those grounded in the contemporary (i.e. modern), living Greek "paideia" ; it would infuse a new spirit in Greek pedagogy (less formalism, abstraction, and "explication de textes") ; it would arouse pupils' interest in learning ; and, ultimately, it would develop more versatile, responsible and democratic citizens, and happier human beings.

This is not the place to assess the validity of these views. It is simply to present the reasons for the support of the language reform as initiated through Law 309/1976. The government considered the establishment of the demotike in the schools as a historical imperative for educational, cultural and political reasons.

Reaction to the General Education Policy

The policy framework of the general education bill as it pertained to changes in the organizational structure of the school system, ROSLA and the language question, was supported by a wide spectrum of political, educational and public opinion. The official party of opposition threw its support behind the bill during the debate in Parliament. ROSLA and the introduction of demotike in all levels of schooling were also endorsed by the political parties of the left.

Yet the political alignments of the left did not accept all the provisions of the bill. In general these groups did not find the new measures sufficiently democratic, modern or equitable. To them, the division of secondary education into the gymnasium and the lyceum, the examinations for entrance into the lycea, and the implied intent to change the flow of students after the compulsory stage so that a sizeable percentage would opt for the technical/vocational course created barriers to educational opportunity.

It was the same with the climate of opinion outside Parliament. The extension of compulsory education and the apparent solution of the problem of "diglossy" were both heralded as important steps in the modernization and democratization of the education system. Powerful interest groups such as the Federation of Secondary School Personnel (OLME) approved virtually all aspects of the reform bill of concern here. And with them virtually all the government conceptions and assumptions regarding educational selection and efficiency, organization of schools, technical and vocational education and language. On the other hand, organizations, or organs of public opinion that were leftist in political orientation or leaned towards that direction were critical of the arrangements regarding post-compulsory schooling, especially the system of examinations and the directions to which it led.

It should also be noted that when the bill was being discussed, and for a time after that, the latter innovation, namely, the system of examinations for the lyceum,was perhaps the single most troublesome aspect of the reform for a wide segment of the public. It continues to be a source of considerable anxiety and controversy, especially in the summer when the exams are taken. And this despite the fact that in the implementation of the law these examinations have become more allocative than eliminating ; students who pass (and over 80 per cent do) can enter the general lyceum, if they so wish. Actually, it appears that the percentage of students who continue after the new gymnasium is not different from what it was under the old system. It seems, therefore, that the argument that the reforms are creating barriers to educational opportunity is not justified.

Chapter 3.2

IMPLEMENTATION AND EVALUATION OF THE GENERAL EDUCATION REFORM

A. IMPLEMENTATION

At a lower policy-making level than Parliament, the implementation of many of the provisions of Law 309, of relevance here, was by statute left to special presidential decrees and ministerial decisions. Such a regulatory procedure entailed the formulation of policy guidelines and directives regarding, among others :

a) the nature of the transition from primary schools to the gymnasia (henceforth to be carried out without entrance examinations) ;
b) the organization and administration of all types of schools ;
c) the types of examinations for entrance into the lycea, for promotion from one class to the other, and for admission into AEIs ;
d) the curriculum of the schools (e.g., the programme of studies indicating also the "hierarchy" of subjects, the syllabus for each subject and the timetable) ;
e) the establishment of experimental schools attached to the universities ; and
f) the preparation and selection of new textbooks and other instructional materials (aids).

1. Curriculum Development

Soon after Law 309 was passed, intensive efforts were made to revise and modernize the curriculum of the schools in accordance with the provisions of the new law. Major responsibility for this undertaking was charged to KEME, the newly-created Centre for Educational Studies (Research) and In-Service Training. In addition to its own personnel, KEME enlisted the cooperation of outside experts, and worked out for ministerial approval curriculum guidelines, syllabi and textbooks. Specifically, since the enactment of the general education bill, the following curriculum developments have been observed :

a) Preparation of new and modernized syllabi for the kindergartens and the primary schools.

b) Adaptation for school use of the short Neohellenic Grammar by the famed linguist Manoles Triantaphyllides. After some delays, a second adaptation of this fundamental text has now been released for production and use in the schools in 1979-80.

c) Ancient Greek texts translated into modern Greek have been introduced into the gymnasium.

d) A revised programme of studies, with detailed syllabi for each subject and with weekly hours per subject, for the newly-established three-year gymnasia. (Presidential decree No. 831, 20 September 1977, and Presidential decree 15 May 1978). Thus it could justifiably be said that in 1979-80 the gymnasium will function on the basis of an entirely new programme in all of its three classes.

e) A revised programme, as above, for the first class of the lyceum (Presidential decree, 15 May, 1978). The programmes for the second and third lyceum classes have been developed by KEME but, as of this time (summer 1979) they have not been officially presented as presidential decrees.

f) Change of the language form (metaglottise) from katharevousa to demotike of all textbooks used in the gymnasium.

g) The preparation of new textbooks commissioned by the Ministry of Education, in the following areas :

- Modern Greek for use in the 1st and 2nd classes (grades) of the gymnasium. The text for the 3rd class has just been approved and will be used this school year.
- History for use in the second class of the gymnasium. Two other textbooks, for the third lyceum class, are in the hands of the special committee appointed to evaluate them.

h) An integral component of the general education of the students has been the introduction of cultural activities in the gymnasium. This is an area where the student himself plays a major part in his own education in that he selects not only the activities but also the way in which he will participate in them.

i) Electives in the general and technical lyceum. One of the criticisms of the traditional six-year gymnasium has been that it was monolithic in the structure of the curriculum and in its educational orientation. It also monopolized access into tertiary institutions. The reforms sought to break up the educational hegemony of the six-year gymnasium by establishing two three-year self-contained cycles and diversifying the upper cycle into general and technical/vocational lycea. One other measure in this direction was the introduction of electives in the general lycea.

Beginning with school year 1978-79, the subjects in the second and third classes of the general lyceum have been differentiated into (i) common or core subjects and (ii) electives. There are two groups of electives : Group A, which includes ancient Greek, history and Latin, and Group B, which includes mathematics, physics and chemistry. Students in the second lyceum class must choose one of the two group options and they must continue with it in the third lyceum class. All electives except Latin in the general lyceum and chemistry in the technical lyceum are also subjects in the core curriculum. However, in addition to the programme alternative that this innovation provides, electives provide the opportunity to study in greater depth and breadth certain subjects which are believed to be necessary for advanced work in the universities and other higher institutions.

All lycea must have these two groups of electives.

The examinations in the elective subjects plus composition are "external" and are held nationally (panhellenic). As described more fully later in this chapter, they are also used for admission into AEIs.

It is believed that these arrangements will have several beneficial outcomes, e.g. :

i) the quality of education in the lycea will be raised ;
ii) preparation for higher studies will rest essentially with the teachers and the school, not the frontisteria ;
iii) the chance factor for admission into AEIs will be lowered ;
iv) parents and students will be relieved from the anxiety which prevailed in the summer months, i.e. the period of cramming for the examinations ;
v) students can choose to suit their interests ; and
vi) parity is established between the general and the technical/vocational lycea.

j) Technology in the gymnasium. Law 309 stipulated that technological subjects be introduced into the curriculum of the three-year gymnasium. As worked out by KEME, this provision took the form of general shop experience with technological devices and basic tools. Its purpose is to develop manual skills deemed necessary in the everyday affairs of life, and to arouse interest in industry and technology. Technology in the gymnasium is not perceived in narrow vocational terms but as part of general education.

It was decided to introduce the subject on an experimental basis starting with 2 hours per week for each gymnasium class. This experimental beginning was duly carried out in 1977-78 in the first class of 4 gymnasia in the Athens area, involving approximately 570 pupils from diverse socio-economic backgrounds. In 1978-79, the experimental programme was extended to the first class of 15 more gymnasia scattered throughout the country, while in the 4 original schools the subject was introduced into the second class as well.

The plan for the coming year, 1979-80, is to extend the programme to another 50 gymnasia.

k) Educational/Vocational Orientation in the Gymnasium. Another innovation mandated by the new law, in the context of modernizing the curriculum of the schools and attuning Greek education to contemporary techno-economic realities, is the introduction, again in the gymnasium, of educational and vocational orientation. Official circles, reflecting a widespread educational belief, view this innovation as potentially a very salutary development. It would (a) create a more favourable attitude towards technical/vocational education, (b) make the education system more efficient in that students would make better educational and/or career choices after the compulsory stage (age 15) and there would ultimately be greater congruence between schooling and work, and (c) contribute to greater understanding of oneself, the way of life one chooses to live, and ultimately to a happier existence.

Since 1976, work groups have been planning the implementation of educational and vocational orientation in the schools. It was decided that this activity begin on an experimental basis and expand gradually and until adequate personnel have been trained. As of today (summer 1979), the following developments can be noted :

i) As a "kick-off" to the programme, in March 1978, KEME, in cooperation with the Manpower Employment Organization (OAED), organized three seminars, two in Athens and the other in Salonica, for educational personnel, mainly the principals of of gymnasia and supervisors (inspectors) in the two regions. Greek and foreign specialists gave papers and conducted discussions.* Following the seminars, 31 school personnel (20 for Athens-Piraeus and 11 for Salonica) were chosen, who, in close cooperation with KEME, introduced educational/vocational orientation in 20 gymnasia in the Athens-Piraeus area and 11 in Salonica. There were 50,000 students involved.

ii) In January and February 1979, three-day orientation seminars were organized for the educational personnel of Volos, Patras and Ioannina. Members of KEME and OAED gave papers and conducted discussions. Following the seminars, educational/vocational orientation began in all the gymnasia of the aforementioned cities.

iii) Establishment of links between the Ministry of Education and the Manpower Employment Organization, an agency which has been involved in vocational guidance for some

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* See Ministry of National Education and Religions, KEME, Educational/Vocational Orientation in the Gymnasium (Athens : Organization for the Publication of School Textbooks, 1978).

time. In November 1978, a joint work group, consisting of members from the Ministry of Education and OAED, submitted a report defining areas of possible cooperation (exchange of information, training of personnel, etc.).

iv) Appointment of a study group charged with the responsibility of evaluating the programme thus far. The study group will submit its report by 30 September 1979.

v) Twenty scholarships have been approved and granted to educationists for study overseas. Holders of these grants will depart in the fall of 1979-80.

2. Selection and Examinations

We have already commented on the significance and the role of examinations in Greece as a means of educational selection (from one level of schooling to the next) and occupational placement. On the one hand, the new measures provide for the abolition of the examinations from the elementary school to the gymnasium at age 12, an innovation which accords with the extension of compulsory education, and the general entrance examinations into the universities (age 18+). On the other hand, national examinations were instituted for entrance into the lyceum (age 15) and a new set of arrangements replaced the previous examinations for admission into AEIs.

a) For entrance into the lyceum

The regulations governing the lyceum examinations,as they have come to be known, are spelled out in minute detail in presidential decrees. Thus, for example, in Presidential decree 419/1978, the examinations for the general lyceum specify : (i) the structure hierarchy and responsibilities among others, of the several examining committees (central and regional) ; (ii) the place and method of grading ; (iii) the subjects in which the candidates are examined,together with the guidelines about the nature of the examination for each subject ; and (iv) the methods, procedures and the timetable that must be followed throughout the examination period (i.e., how and how many topics are selected, how the exams are transported to the examining centres, conducted and supervised, what colour pencil must be used by the two graders, how the results are announced, etc.).

The first lyceum examinations, as they have come to be known, were held in the summer of 1977 and have been held every summer since. Students who successfully complete the three-year gymnasium (i.e. who possess a gymnasium school-leaving certificate) may choose one of three examination options : (i) for the general lyceum, (ii) for the technical/vocational lyceum, and (iii) for both lycea. For the general lyceum they are examined in composition, ancient Greek literature (in translation), mathematics and either history or physics. For the technical/vocational counterparts, the examination subjects are physics, mathematics, chemistry and composition. In all subjects, students are examined in the material which is taught in the third class of the gymnasium. Furthermore, gymnasium graduates may enter the new technical/vocational schools without examinations.

b) For admission into AEIs

Another policy change in the system of selection is the method of admission into AEIs. This will be implemented in two stages, the first in the summer of 1979 and the second in the summer of 1980. Thus, those who will enter AEIs and higher institutions in the fall of 1980 will have been selected on the basis of a different set of arrangements from those admitted until then.

Previously admissions into tertiary institutions was based mainly on the results of "general entrance examinations", administered on a national scale at the end of August

and the beginning of September of each year. Students who had successfully completed the full secondary school course were entitled to sit for these examinations. In filling out his application for the examination, a candidate indicated the field of study (e.g., medical sciences, law, physics-mathematics, KATEE, etc.) and within it the specific subject preferences in ranked order. There were variations in the subjects examined depending on the field of study designated as the one into which a candidate wished to enter.

For a long time, this system had been the target of constant and severe criticism. It was, among other things, felt to be unreliable and hence inefficient in terms of selecting the most competent ; and it had all the social and psychological drawbacks of selection procedures based on one examination taken at one particular time.

It is believed that the new policy will eliminate the previous anomalies and result in a more humane, fair and efficient selection of students into tertiary educational institutions.*

i) General lycea : In the second and third classes of general lyceum students take two sets of subjects : common (core) and electives. The elective subjects fall under two categories : (a) "humanities (ancient Greek, Latin and history) and (b) mathematics and sciences (mathematics, physics and chemistry). All electives, except Latin, are also included among the common subjects. They are thus supposed to provide deeper and wider knowledge in the same discipline. All students are required to take the common subjects (the standard curriculum fare of an academically oriented school) and one of the two sets of electives, that is the elective principle applies only to the "humanities" or "sciences" option.

At the end of the second and third lyceum classes students sit for specially held national (Panhellenic) examinations in the elective subjects, plus composition. In addition, they are examined by the school authorities in the core areas for the usual purposes of promotion from the second to the third lyceum class and for graduation. The lyceum school leaving certificate (diploma) is of two types : type A, awarded to students who took the "humanities" electives, and type B to those who opted for the "sciences". The "humanities" diploma entitles a student to apply for admission into the Schools of theology, philosophy, law and into the Panteios School of Political Sciences. The "sciences" diploma entitles one to become a candidate for the Polytechnical, Medical, Dental, Veterinary, Physico-mathematical and Agricultural Schools. Holders of either diploma may apply for admission into the Economics Departments of the Law School, the Highest School of Economic and Commercial Sciences (ΑΣΟΕΕ), the Highest School of Industry, the Highest School of Fine Arts, the Pedagogical Academies and other teacher training institutions, the KATEEs and the private higher technical schools.

ii) Technical/Vocational lycea : In the technical and vocational lycea there are no electives as such. However, if a student wishes to continue in an AEI, he/she must take "additional" subjects and national (Panhellenic) examinations in them. Like his/her counterpart in the general lyceum, he/she must also take an examination in composition. The type B school-leaving certificate (diploma) described above is also awarded to graduates of the technical/vocational lycea, who took the additional subjects as well and entitles its recipients to apply for admission to the same university and non-university level schools.

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* See Ministry of National Education and Religions, Panhellenic Examinations of the Lyceum : New Method of Selection for Highest and Higher Schools, March 1979 (in Greek).

iii) The selection formula : According to the new policy, selection into AEIs will be based on : (a) the candidate's school preference and (b) a composite index derived from the sum of : (i) the average grade at the end of the second class of the lyceum, (ii) the average grade in the lyceum school-leaving certificate (diploma), and (iii) the grades earned in the two national examinations (in composition and the electives or the additional subjects at the end of the second and third classes of the lyceum), and all these multiplied, for each school, by a particular coefficient.

Selection into higher institutions (Pedagogical Academies, KATEEs, etc.) will be based on : (a) the candidate's school preference, and (b) a composite index derived from the sum of : (i) the average grade at the end of the second class of the lyceum, (ii) the average grade on the lyceum school-leaving certificate (diploma), and (iii) the grades in certain subjects in the second and third class of the lyceum, and all these multiplied, for each school, by a particular coefficient.

iv) The Rationale of the New Policy : It is believed that the new system offers numerous advantages over the previous. These are identified as follows :

a) The two main options ("humanities" and "sciences") will be offered in all the lycea, hence all lyceum students will be able to prepare for the post-secondary studies of their choice. In the old system the "theoretical" and "practical-scientific" options were offered only in the cities and larger towns. In the smaller towns only the "theoretical" branch was provided. Hence students in such places were obligated to seek the appropriate "practical/scientific" preparation for higher studies in another centre or to attend the "theoretical" option in their own place, the consequence of which was that they were poorly prepared.

b) There will be no additional and external examinations. The old entrance examinations, an external method of selection, will be abolished. Henceforth, entry into AEIs will be based on national examinations, which, nevertheless, will be part of the lyceum exams.

c) In the panhellenic examinations, students will be tested in the subject matter which they will have been taught in the lyceum. Previously, questions in the university entrance examinations could have been drawn from the entire syllabus, regardless of whether it was covered in the schools. Among other things, this consideration will contribute to the improvement of teaching in the lycea.

d) The element of "chance" will be lessened. Selection will no longer be based on the grades received in four three-hour written examinations which were conducted during a period of 4 to 8 days. The new system offers opportunities to rectify poor performance in one exam. It also forces the student to exert himself earlier in his school career (in the second class of the lyceum), hence to consolidate better the knowledge he acquires.

e) Students in the technical/vocational lycea will not be obligated to take subjects in which they are not interested. If they do not want to continue their education in an AEI they do not have to take the additional subjects.

f) Finally, the anxiety of the summer months, which was so characteristic of the previous system, will be avoided since the panhellenic examinations will be held in June.

3. In-service Training of Teachers : SELME

Although not directly related to Law 309, an important innovation in the general plan for the reform and modernization of Greek education has been the establishment in Athens of the School for the In-service Training of Secondary School Personnel (SELME). As defined in Presidential decree 127 (Government Gazette 40/12.2.1977), the purpose of SELME, insofar

as secondary school teachers are concerned, is (a) to supplement their (the teachers') knowledge by acquainting them with new developments in their area of subject matter specialization, (b) to bring them up to date on new methods of teaching and contemporary pedagogy, and (c) to adopt knowledge and methods of teaching to changes in Greek educational realities.

For the teachers in service, the course of studies extends over one year (1 October to 30 June) and the subjects include (a) "common subjects", e.g., philosophy, general pedagogy, comparative education, methods of teaching, psychology, educational administration, sociology, economics, and "elements of democracy", and (b) special subjects for the teachers of several academic disciplines (e.g., teachers of theology, literature, mathematics, physics, and foreign languages).

Teachers are selected by a specially-appointed committee.

B. EVALUATION AND PROSPECTS

The implementation of the reform policies on general education is still going on and it is too early to attempt an evaluation of their efficacy. What would be valuable at this stage would be (a) to refer to the evidence that is available on the reception of the reforms and their effectiveness thus far, (b) to comment on some of the more critical issues raised by policy decisions from a comparative perspective and in the light of relevant educational theory, and (c) to make whatever estimates or assessments seem appropriate of the likely effects or implications of some of the more germane aspects of the reforms, e.g., raising of the school-leaving age (ROSLA).

1. Reception and Effectiveness

In an opinion survey conducted in May-June 1977, Greek parents by and large indicated approval of virtually all reform measures, and in certain cases, they did so by large majorities. Thus, for example, over 80 per cent of the parents sampled (over 2,500) endorsed the introduction of technological subjects and cultural activities in the gymnasia, while 75 per cent approved educational/vocational orientation in the same schools ; 71 per cent of the parents accepted the teaching of ancient Greek texts in translation in the gymnasium while just over half thought that three years of the same subject in the original was quite sufficient in the lyceum.*

From scattered anecdotal evidence and personal observations it appears that teachers and students in the gymnasium show more enthusiasm and interest than before in ancient Greek literature now that this subject is taught in translation. Likewise, a more systematic evaluation of the newly introduced subject of elementary technology has shown that parents and students are favourably disposed towards this innovation.** Indeed there is limited evidence that some students have changed their original plans and are now planning to follow the technical/vocational route because of their exposure to elementary technology in the gymnasium. It appears also that students and parents have responded favourably to the newly organized cultural activities.

However, at this time it is not possible to draw any definite conclusions as to the full effects of the new institutional mechanisms. This can be said with respect to several important policy expectations, e.g., (a) change in attitudes and demands in favour of

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* See Centre for Political Research and Recurrent Education, The Reform of Education and Public Opinion, Athens, 1979 (in Greek).

** See S.N. Paleokrasas, "Experimental Application of Technological Subjects in the Gymnasium", unpublished paper (in Greek).

technical/vocational education, (b) alternative options and routes to higher education, (c) less reliance on the frontisteria, the "cram schools", which prepare students for examinations, and (d) closer connection between the education system and the job market and, therefore, greater employability of secondary school graduates. For a more reliable evaluation a longer timespan must elapse between implementation and evaluation.

2. Policy Issues : Comparative and Theoretical Perspectives

In the Introduction to this report, certain ideological and theoretical strands, which explicitly or implicity were woven into the reform tapestry, were commented upon. There it was argued that, in its broad ideological and institutional framework, the Greek reform movement could be described as a genus of the post-World War II Western liberal reform species. At the same time, an attempt was made to assess the official views on the development role of technical/vocational schooling and the distributive aspects of education in general in the light of contemporary Western policy thinking and the findings of comparative education research.

This section attempts to do a similar sort of evaluative analysis of the more salient policy decisions made on the basis of Law 309.

The structural framework of the reorganized Greek education system displays characteristics of the Western European, especially the continental, pattern of schooling. Like the French, for example, there is a common lower secondary stage, followed by a diversified selective upper secondary.

There are, however, some differences between the Greek system, at its present stage of evolution, and comparable Western European counterparts. An examination of such differences would be especially valuable and relevant from the standpoints of modernization and/or democratization, two avowed goals of Greek educational reform. One area where this is especially true is the new gymnasium.

Like the French colleges d'enseignement secondaire (CES), the Greek gymnasium is a sort of "comprehensive" middle school ; it is for all students and it provides a common set of required, mostly academic, subjects. In addition, both types of school introduce the students to elementary technology, organize cultural activities outside the normal curriculum, and provide educational/vocational orientation. Unlike the French CES, however, the Greek gymnasium does not differentiate students into streams or groups on the basis of demonstrated interests and abilities, nor is there a variation in the organization of instruction, methodology and evaluation. In these respects the new Greek gymnasium does not differ in any substantive way from the previous lower classes of the traditional six-year gymnasium.

Another area where there are differences between the Greek and the Western European systems is the upper level of secondary schooling. The introduction of elective subjects is a step towards greater flexibility and choice, two characteristics of a modern education system. In contrast, however, to the European counterparts, the choices in the Greek lyceum are, at present, limited. This is another area where government efforts need to be directed.

3. Effects of ROSLA

Making the first three years of secondary education compulsory in one go sounds a tremendous change. Yet the pace for this change had been gradually set voluntarily in the years prior to the reform. The rapid urbanization and rising income of the population led to an increase of the social demand for education, especially for the level that was the subject of the reform. Enrolments at the first cycle of secondary education have been rising on the average by 8,000 pupils per year in the decade prior to the reform.

It is estimated that when the ROSLA will become fully effective, the extra number of students in the gymnasia will be around 114,000 (see Table 3.1). This represents a 36 per cent increase in the student body of the pre-reform first cycle (first three years) of secondary general education.*

The first question that arises is : Will the Greek education system be able to increase its capacity within three years so as to accommodate the additional number of students ? This question can be answered by looking at what the increase in the student population means in terms of teachers, classrooms, current and capital expenditures.

As shown in Table 3.1, the extra number of teachers is estimated at 2,850, which represents a 14 per cent increase of the current stock of teachers. In spite of the numbers involved, finding the extra teachers is not likely to be a bottleneck in the implementation of ROSLA. For there already exists a backlog of applications for secondary teacher posts. Also, the amount of extra current expenditure required to run the additional classrooms and staff pay does not seem to present any problem as it amounts to a mere 5 per cent increment of the annual current account of the educational budget.

The real bottleneck in the implementation of ROSLA might be classrooms. Reference has already been made to the existence of a "roof problem" in secondary education, many schools operating on a morning-evening shift basis, especially in urban areas. It is estimated that the new law will create a need for an investment programme of 228 million US dollars which represents, on an annual basis, an increase of nearly 50 per cent of the present annual capital expenditure on education. It remains to be seen whether this investment will be somehow financed or the "roof problem" simply accentuated.

Table 3.1

SOME ORDERS OF MAGNITUDE LIKELY TO RESULT FROM THE ROSLA

Item	Absolute magnitude	As percentage of the pre-reform magnitude
Extra number of gymnasium students	114,000	36
Extra number of teachers	2,850	14
Extra annual recurrent cost	$22 million	5
Extra annual investment cost	$76 million	46
Extra number of graduates from 3rd year of the gymnasium	31,000	39
Permanent reduction of labour force	65,840	2

Source : G. Psacharopoulos, "Economic implication of raising leaving age", Comparative Education Review, February 1978.

* For alternative estimates of the likely number of students and costs resulting from the ROSLA, see Ministry of Education, "Projections of the student flow in the gymnasia by the extension of compulsory education", February 1976 (in Greek) and Ministry of Education, "Report of the working party on the implications of the ROSLA and the switch towards technical education", October 1977 (in Greek).

The figures reported in Table 3.1 could be considered to be the result of the immediate (short run) impact of the new law. Beyond these immediate effects, the ROSLA is likely to have some long-run social implications. These can be classified under the traditional headings of efficiency, social equity and employment.

Efficiency : The extra three years of schooling imposed upon a part of the population can be seen from two points of view : consumption and/or investment. A higher level of educational attainment confers undisputed consumer benefits on the recipient mainly in the form of more informed decision-making and participation in community affairs. When viewed from this state consumption point of view one cannot raise the issue of how efficient public spending is represented by ROSLA. Like any other consumption expenditure it is by definition supposed to benefit the "consumer" by the sheer fact that he/she was willing to pay a price for acquiring the "good" involved.

However, educational expenditures have been increasingly viewed as investment.* The investment viewpoint does not deny or contradict the consumption value of education. It simply complements it in the following sense : if educational expenditures form a new kind of capital - called human capital - then one must question the economic efficiency of ROSLA by contrasting its costs with the benefits. For there exists a host of other activities in the economy, like roads, hospitals and factories that compete for investment funds. Therefore, in order to maximize the value of the country's social product one must invest where the benefit-cost ratio is at its highest ; or where the social yield or return is at its maximum.

How efficient is the Greek ROSLA likely to be ? Unfortunately, appropriate data do not exist for answering this question in an unambiguous way. However, plenty of peripheral evidence exists to allow an attempt at establishing rough upper and lower bounds on the marginal rate of return to investment in three extra years of schooling beyond primary school.

A survey of urban annual earnings in Greece in 1977 has revealed the following structure :

- Earnings of those with primary education	138,851 drs.
- Earnings of those with 3 years secondary school	158,334 drs.

As a first approximation one could treat the difference in earnings between the two groups of workers as representing the marginal benefit of three years of schooling, i.e. 22,483 drs. The average recurrent cost per student at this level of education is estimated at 9,258 drs. However, the true social cost of investment in education includes the lost production while studying, which is usually measured by foregone earnings. This opportunity cost will clearly differ between urban and rural children. The former (ages 13-15) can hardly be assumed to have an appreciable opportunity cost. Rural children, however, do have an opportunity cost at this age because of the help they provide in agricultural production. In the absence of any data on the productivity of youth labour in agriculture, two estimates were made to approximate the returns of the 3-year investment represented by ROSLA and corresponding to the following assumption :

a) zero opportunity cost, and

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* This view is not new. It is found in Adam Smith's Wealth of Nations, 1776 ; it has been expounded by Strumilin in the Planned Economy, 1929 ; and it has received major recent attention starting with T.W. Schultz's writings in the late fifties (e.g. see his "Investment in Man : An economist's view", The Social Service Review, 1959).

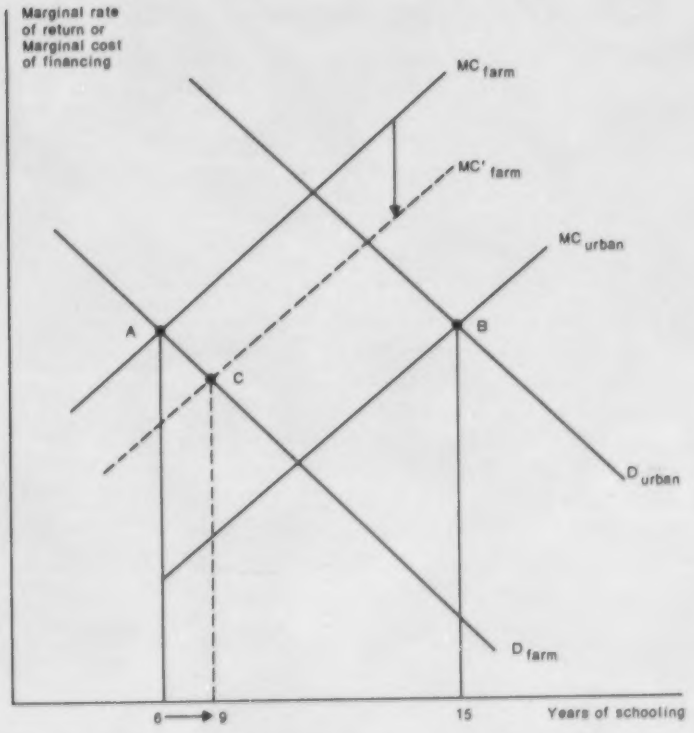
b) opportunity cost equal to the wages of a primary school graduate. Using these alternative assumptions, the upper and lower bounds of the returns to ROSLA were estimated at 80 and 5 per cent, respectively.

In spite of the roughness and wide range involved, one could confidently argue that the true profitability of investing in ROSLA is likely to be above any alternative criterion social rate of return. The reason is that ROSLA represents investment at the lower end of the school ladder and there exists plenty of evidence from other countries that the yield to investment at this level is at its highest.*

One interesting dimension that arises in discussing the efficiency of the Greek ROSLA is the rural-urban one. The raising of the school-leaving age will mostly affect rural families, as social demand in the urban centres has already accounted for increased enrolments in the first 3 years of secondary schools. The efficiency analysis of ROSLA becomes more difficult in this case as the issue is mixed with the voluntary-involuntary character of the decision to invest as well as with who finances the opportunity cost of the individual while at school. It has been shown in the literature that minimum school laws are privately inefficient.** This is the case in Figure E where two groups of people are

Figure E

THE EFFECT OF ROSLA ON THE DESIRED NUMBER OF YEARS OF SCHOOLING



* See, for example, G. Psacharopoulos, Returns to Education : An International Comparison, Elsevier, 1975.

** See G. Becker, Human Capital, National Bureau of Economic Research, 2nd edition, 1975.

distinguished : urban children with high "ability" and low opportunity costs, and farm children with low "ability" and high opportunity costs. The term "ability" here does not have any mental calibre connotation. It simply reflects the fact that urban children have higher opportunities later in life to realise higher returns from their investment in schooling. Under such circumstances, farm children would achieve their optimum by completing, say, 6 years of schooling. A minimum schooling law of 9 years would oblige them to move to the vertical dotted line,which is inefficient from their point of view as the costs exceed the returns. (Note that urban children have remained unaffected by the new law, at point B.). Now, if point C represents returns which are higher than any likely social rate of discount (and this is very likely to be the case), the State could subsidise the families affected by the new law (in Figure E) by lowering the marginal cost of schooling for farm families to MC'). In such case, point C would represent a privately efficient choice and compulsion.

Historically, the effect of minimum schooling laws on increasing school attendance has been doubtful. Actually, the recent study concluded that US compulsory schooling legislation did not cause the observed increases in the levels of schooling in the late nineteenth and early twentieth centuries.* The weak influence of such legislation on enrolments has been documented in earlier studies as well.**

Equity : There exist at least two distinct dimensions of the equity effects of the new law : the equality of opportunity aspects and the narrower income distribution aspect.

Extending compulsory schooling by three years is bound to increase the equality of opportunity of access to the higher levels of education. For, as it has been argued above, it will be mainly the farm children who will be affected by the ROSLA. At the same time, it has been argued that because of the involuntary character of the decision for most of them, not many children will take advantage of this opportunity and continue their education beyond the age of 16. On the other hand, the new law must be welcomed even for the few children who will be able to demonstrate their ability and go up the educational ladder, something they could not have achieved under the present system.

The income distribution effects are more difficult to assess. At the intuitive level the ROSLA must render income distribution more equal as it will push up some below-average wage earners towards the mean income of the population. This is clearly seen in the monetary reward structure of Greek society by level of education, although it is reminded that the sample refers only to urban employees (see Table 3.2).

The ROSLA is likely to render income distribution more equal on an additional ground : the supply of those with 9 years of schooling will increase annually by about 31,000, whereas there will be a gap of approximately 65,000 of labour with lower qualifications. Thus, on mere supply and demand reasons, the wage differential is expected to decrease. The extent of the decrease will of course depend upon several factors like the elasticities of substitution (and demand) between different kinds of labour and the length of the run one is willing to consider. Relying once more on other studies, it has been shown that substitution possibilities are at their highest when the lower skills are compared.***

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* See W.M. Landes and L.C. Solmon, "Compulsory schooling legislation : An economic analysis of law and social change in the nineteenth century", The Journal of Economic History (March 1972).

** See G. Stigler, Employment and Compensation in Education, National Bureau of Economic Research, 1950, Appendix B; and J. Folger and C. Nam, Education of the American Population, U.S. Bureau of the Census, 1967.

*** See G. Psacharopoulos, "Substitution assumptions versus empirical evidence in manpower planning", De Economist, November/December 1973.

Thus, the wage differential is not bound to change dramatically, especially when one adopts a longer time horizon when the economy would have adapted to the new skill structure of the labour force.

Table 3.2

ANNUAL EARNINGS BY LEVEL OF EDUCATION, 1977

Educational Level	Annual earnings in drs.
Primary school graduate	135,851
3 years secondary school	158,334
Secondary school graduate	182,712
University graduate	231,105
All levels	194,213

If the monetary reward structure is not going to alter significantly after ROSLA, one could approximate the importance of ROSLA on income distribution by means of econometric simulation. The starting point of the simulation is the assumption of a functional relationship of the kind :

$$Y = f(S) \qquad (1)$$

where Y is annual earnings and S the number of years of schooling of the individual. The next step is to specify (1) in a semi-logarithmic form

$$LnY = a + bS \qquad (2)$$

take variances of both sides of (2) and thus express income distribution (VarLnY) as a function of the dispersion of years of schooling of the population, i.e.*

$$VarLnY = Var(bS)$$

The effect of ROSLA is to reduce the dispersion of educational attainment of the population and hence reduce income inequality (see Figure F).

In order to assess the size of the improvement of income distribution after the ROSLA, an earnings function of the form

$$LnY = 10.59 + .059S + .066EX - .0011EX^2$$

was fitted to the 1977 urban employees sample, where EX is the number of years of experience in the labour force. The value of VarLnY in this sample is equal to .128 and this can be considered the basis of the simulation. Then, by giving artificially to an individual additional years of schooling (relative to the ones he or she already had) one can predict the simulated individual's income (Y), find the new variance of the logarithm of earnings and compare it to the base. The extent to which the predicted variance decreases relative to the base provides a measure of the improvement in income distribution resulting from the ROSLA.

Table 3.3 shows the results of this simulation. By giving more years of schooling to those who have a low level of educational attainment, income distribution becomes more equal.

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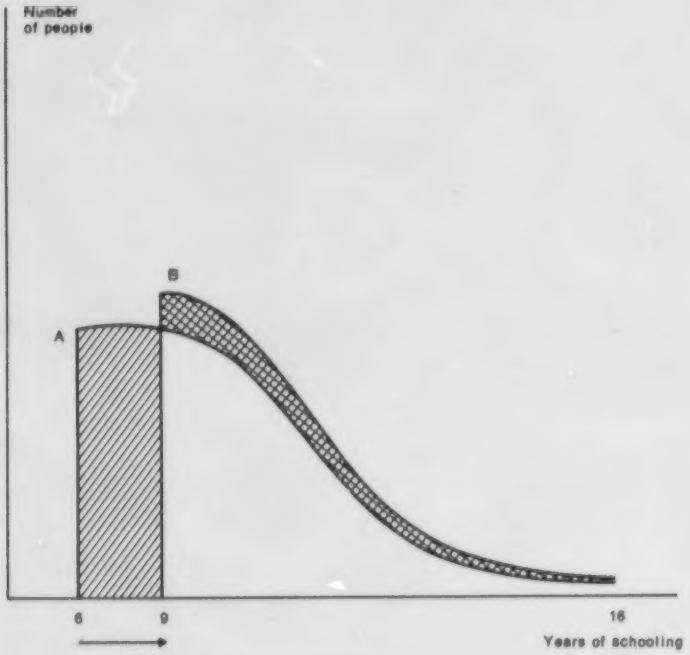
* For an elaboration of this point, see B.R.Chiswick, "Minimum schooling legislation and the cross-sectional distribution of income", Economic Journal, September 1969.

Figure F

THE EDUCATIONAL DISTRIBUTION OF THE POPULATION BEFORE (A) AND AFTER (B) THE ROSLA



Note : Figure is drawn out of scale for illustration.

Table 3.3

THE SIMULATED EFFECT OF ROSLA ON INCOME DISTRIBUTION

Educational policy	Mean years of schooling	Percentage change of income distribution relative to the base
Base	12.3	--
No person with less than 9 years of schooling	13.3	24 per cent improvement

Of course the 24 per cent improvement shown in Table 3.3 exaggerates the true improvement in income distribution because, as argued earlier, one of the effects of ROSLA will be to change the very parameters on which the simulation was based. However, the expectation remains that in the Greek case the effect of ROSLA will be beneficial on income distribution as it has been elsewhere.*

* For similar evidence in the United Kingdom, Mexico and the United States, see A. Marvin and G. Psacharopoulos, "Schooling and income distribution", Review of Economics and Statistics, August 1976.

Employment : The expected employment effects of ROSLA are of two kinds, none of which is independent of the efficiency effects. The first employment effect is a permanent reduction of the labour force as a part of those who were participating before in the labour market will now be in the gymnasium. The second effect is a change in the educational mix of the labour force because the category of those with a primary school certificate as their sole qualification will gradually disappear. Another possible reason for the changing qualification mix of the labour force in the new "steady state" is that the extra graduates from the gymnasia will put pressure on for entry into the post-secondary institutions and thus create a second-order effect towards the qualification upgrading of the labour force. For reasons mentioned below, however, the magnitude and importance of this second-order effect is doubtful.

The employment effects are not independent of the efficiency as output (X) and labour (L) are connected by means of a production function, say

$$X = f(K,L)$$

where K represents capital services. A permanent reduction of the labour factor input, ceteris paribus, is bound to lead to a permanent reduction of output. On the other hand, the altered qualification mix of the reduced labour force might well offset the reduction in output, if the change in the mix was in the desired direction from the efficiency viewpoint.

The trade-offs involved are taxing empirical matters and a full general-equilibrium investigation of them has never appeared in the literature for a particular country.* However, it would be possible in the Greek case to speculate on the likely employment effects of ROSLA based on partial evidence.

The first question is : what kind of skills will be affected by the ROSLA ? Table 3.4 provides an occupational breakdown of those aged 10-14 in the labour force.

Table 3.4

LABOUR FORCE, 10-14 YEARS OLD, BY OCCUPATIONAL GROUP, 1971

Occupation	Number of persons
Farmers, lodgers and related workers	35,460
Craftsmen and labourers (not in agriculture)	21,360
Service workers, tradesmen and craftsmen	7,160
Other	1,860
Total	65,840

Source : National Statistical Service of Greece, Population Census 1971.

Abstracting from the age discrepancy (the ROSLA deals with the 13-15 year olds) one could say that the expected permanent reduction of the labour force will be in the order of 2 per cent. On the assumption that the elasticity of output with respect to labour is unity, ROSLA could result in an equivalent reduction in output. But at the same time it could be argued that in the long run this output could be recovered with a profit because of the

* For two rather remote attempts regarding the United Kingdom, see D.J. O'Keefe, "Some economic aspects of raising the school leaving age in England and Wales in 1947", Economic History Review, August 1975 ; and J. Sheehan, "Economic Aspects", Chapter 4, in J.W. Tibble, ed. The Extra Year, Routledge & Kegan Paul, 1970.

higher productivity of the graduates of the new school system. Also, this reduction in employment must be "employment-generating", in the sense that the overall unemployment rate must be reduced, at least in the few years during and immediately after ROSLA. The reason is that there will be pressure in the higher skill market, as the supply of the 13-15-year-olds will be reduced. After the new graduates appear, unemployment among them is bound to increase. Once more this assertion is based on other studies which have shown that unemployment is at its highest among graduates of the secondary level.*

As shown earlier in Table 3.1, it is estimated that there will be an additional 31,000 graduates from the last year of the compulsory cycle, which represents a 39 per cent increase in the number of graduates from today's corresponding grade. A second question that arises is : On the assumption that the new law will become fully effective, where will the extra graduates go ? The answer to this question depends upon how different groups in the population will be affected by ROSLA.

In the first place, a large number of students will be totally unaffected because they would have anyway continued their education beyond the age of 12. These are mainly students in urban areas with adequate secondary school provision and high social demand for education.

The 114,000 students who will be affected by the new law could be divided into three categories :

a) those who were judged by the set academic standards unable to enter secondary general education ;
b) those who, although academically capable, were obliged not to continue their education for financial reasons ; and
c) those who voluntarily had elected not to continue their education, although they were academically capable and they had the financial means to do so.

It is not possible to have an arithmetic breakdown of the 114,000 students into three groups. However, the high proportion of farmers and labourers in Table 3.4 suggests that the majority of those affected will be in group (b) above, i.e. they represent academically able students, who, because of the lack of financial opportunity, are obliged to terminate their studies at the age of 12. At this point, "financial opportunity" does not only imply the direct cost of schooling (which by law is nil at this level of education) but mainly the foregone earnings or lost agricultural production that these children represent to their families.**

Now, given the socio-economic background of the 31,000 extra gymnasium school graduates, one should expect most of them to enter directly active lives - an entry that for most of them was already delayed by three years. For this reason one should not expect the ROSLA to have a very significant impact on the demand for places in the lycea and universities. And for the same reason the voluntary extra demand for places in secondary technical education is expected to be small. Furthermore, the high majority of affected children working in agriculture implied in Table 3.4 is bound to mitigate the visible adverse employment effects. Regarding the rest, the employment effects depend upon whether these children will continue their education or will simply enter the labour market. The immediate

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* See G. Psacharopoulos, Earnings and Education in OECD Countries, OECD, Paris 1975, p. 156.

** This is one reason for which the new law might not become fully operational, i.e. because of the resistance of some parents to send their children to school.

employment effects for those who will enter the labour market will be adverse*, but these will gradually fade out as the economy adapts to the new skill mix.

By way of summary, the likely economic effects of the Greek ROSLA will be beneficial, especially in the long run. At the same time, one should not expect these effects to be very dramatic in their magnitude. To this add the possible delay in the implementation of the new law because of the capital expenditure required and the resistance of some families to send their children to school beyond the age of 12.

The extra 3 years will have some adverse short-run effects on the labour market and the budget of some poor families. But these effects could be mitigated by State financing of the opportunity cost of schooling for selected population groups.

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* Especially when one thinks that the 3-year gymnasium certificate may raise their job expectations and make them reluctant to enter manual jobs.

Chapter 3.3

THE REFORM OF TECHNICAL AND VOCATIONAL EDUCATION : LAW 576/1977

On 7 April 1977 the President of the Greek Republic signed Law 576 "On the Organization and Administration of Secondary and Higher Technical and Vocational Education", the entire text of which was published in the Government Gazette on 13 April 1977. Thus the second major piece of legislation, on technical education policy, entered the statutes as complementary to the first, Law 309/1976, on general education policy. This final outcome was the culmination of a series of events going back to early 1975, and a process that has been characteristic of the Greek educational policy-making.

1. The Formulation of the Technical/Vocational Education Policy

1.1. The Vocational Education Work Group (1975)

Very soon after the elections of November 1974 (in January 1975), the government appointed a high-level work group* "to study the various aspects (topics) of vocational education and to submit its findings"**. The Vocational Education Work Group submitted its report in July 1975.

Four major topics (areas of study) were examined in this report :

a) the structure and levels of vocational education
b) the broader education system
c) employment rights
d) teaching personnel

The Work Group diagnosed several weaknesses in the existing system. The institutional structure of vocational education and the various types of schools (lower, secondary and higher) were not adequate for the satisfactory preparation of the different levels of manpower that were needed for production. The existing pattern of student flows into the system was "symptomatic" and unplanned, and there was an absence of direction and orientation on the part of Greek youth. According to this Group, the main "causes" of this unsatisfactory state of affairs were :

a) Absence of vocational orientation.
b) Lack of information, and scepticism about vocational opportunities.
c) The traditional lack of respect for vocational education.
d) The shortcomings of the education system to meet satisfactorily educational demands.
e) The delay in the development of vocational and technical education.

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* The group was headed by P. Sakellarides, former rector of the National Technical University (the Polytechneion), and included economists, high-ranking government officials and teachers in higher technical schools.

** Report of Working Group for the Study of Topics Pertaining to Vocational Education (in Greek), mimeographed. Hereafter cited as Sakellarides Report.

f) The erroneous view that vocational education seeks to develop vocational skills only.*

To remedy some of these weaknesses, a reorganization of the structure of technical/vocational education was recommended and estimates were made of the desirable flow of students into the various levels and types of schools. One noteworthy innovation suggested by this Group was the operation of lower-lever secondary schools that would combine general education with "vocational orientation". It was deemed desirable that this type of school be ultimately established as the first level of secondary education. In the meantime, such schools would follow the six-year elementary level ; they would be of three years' duration (ages 12-15) ; and they would function parallel to the three-year gymnasium with which they would also be equivalent. (It should be noted here that behind this recommendation was the idea that secondary general education would be divided into two three-year cycles, a three-year gymnasium (ages 12-15), and a selective three-year lyceum). Another innovation was that selection would take place at the completion of the three-year lower secondary cycle for entrance into either the general lyceum or the second three-year level of technical/vocational schooling. The leaving certificate of these two types of upper secondary schools would be equivalent for all purposes except if a student wished to sit for the entrance examinations into AEIs. For this purpose, an additional "preparatory" stage would be required.**

Other more general recommendations made in this report were that :

"a) The education system should be essentially open so that students may be able to move in all directions with the least possible loss of time...

b) Ways and means (incentives) should be studied and incorporated into law, whereby the flow of students would be gradually adjusted to desirable targets, and students will be drawn to areas of specialization that are necessary for the development of the country.

c) Top priority be given to supplying in full technical education with adequate personnel and to the provision of sufficient and suitable units and equipment.

d) Programmes of study be modernized in a way that will allow the quick adjustment of students and graduates to the manpower needs of the economy... bearing in mind that the precise identification according to area of specialization of such needs in the next 10 to 15 years is a difficult task, particularly for a developing economy such as ours.

e) Higher technical and vocational education be the exclusive responsibility of the State...

f) A mechanism (organ) be set up to coordinate the activities and programmes of all the agencies involved in vocational education and to solve the problems that arise from time to time."***

1.2. Law-Plan (Nomoshedio) on Technical/Vocational Education, and Law 576/1977

The report of the Vocational Education Work Group was submitted to the Minister of Education and discussed at a meeting of high-level government officials, at which also the basic principles of a law-plan were laid. Subsequently such a plan was drafted by designated officials of the Ministry, as is the customary procedure in educational policy-making.

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* Ibid., pp. 6-7

** Ibid., pp. 7-9

*** Ibid., pp. 19-20

The Law-Plan "On the Organization and Administration of Secondary and Higher Vocational and Technical Education" was submitted to the General Accounting Office in July 1976. At the same time, it was sent to various educational circles soliciting their views, and it appeared in the local press.

As with its precursor on general education, the proposed bill on vocational/technical education aroused so much interest and controversy, that the Law-Plan was discussed further among official circles and thoroughly revised. It was then introduced into Parliament (Voule) for debate and final action on 23 February 1977. And after additional discussion inside and outside the Chamber, it was voted into Law 576/1977.

The Law-Plan and Law 576 deviated from the recommendations of the Vocational Education Work Group examined above in that they did not provide for a lower level secondary school of general-cum-vocational orientation. Vocational/technical education would begin after the completion of a nine-year compulsory general course and would be of two kinds : a two- to four-semester course given in unselective vocational/technical "schools", and a three-year course in selective vocational/technical lycea. The vocational/technical schools and the lycea would combine general education with vocational or technical training so that, in the words of both documents, students would be able to contribute effectively to society as "free and responsible citizens".

The Prefatory Statement attached to the Law-Plan noted that the technical lyceum would be equivalent to the general lyceum, as established by Law 309/1976, and would allow a student to continue his education into higher technical schools. As finally legislated, students attending a technical lyceum could compete for entrance into "highest" institutions as well, provided they satisfied the same additional course requirements as the students in the general lyceum, and participated in the same panhellenic examinations.

Another important aspect of the new vocational/technical policy was the organization of tertiary technical education, especially the Centres of Higher Technical and Vocational Education (KATEEs) (see p. 31).

2. The Rationale of the New Policy

The new technical education policy framework was in part dictated by prior policy decisions. For example, the abolition of lower vocational schools followed necessarily from the raising of the school-leaving age (the nine-year compulsory education), which was both a constitutional mandate and an educational policy decision (Law 309/1976). There were, however, other more directly germane considerations.

2.1. Alternatives to the "monolithic" gymnasium

The technical lyceum provides an alternative type of post-compulsory secondary education to the traditional and rather monolithic six-year gymnasium.

As an adequate number of technical lycea become fully equipped, a more balanced distribution of the student population, as between general and technical/vocational schooling, will result. When the Law-Plan was introduced into Parliament, the Under-Secretary for Education pointed out that, according to the 1974 UNESCO Yearbook, Greece lagged behind most other Western European countries in the proportion of students attending technical and vocational schools vis-à-vis those in "six-year gymnasia". In Greece, 22 per cent of all those enrolled in post-primary schools were in the former types of institutions as against 78 per cent in the gymnasia.* "With these measures", according to the Prefatory

* See Praktika Voules (Parliamentary Proceedings), 23 February 1977, p. 3359.

Statement to the Law-Plan, "and the qualitative improvement of vocational education, we believe that the percentages of student flows will change in favour of vocational education, which today enrols only 20 per cent of the student population at the secondary level while in the countries of the European Economic Community the percentage ranges from 50 to 70".* This proportion was believed to be imbalanced for several purposes, e.g., admission into AEIs, economic development, employment opportunities, unemployment and under-employment, personal satisfaction, and so on.

2.2. Relief of pressure for admission into AEIs

The type of reorganization in the general and the technical/vocational system of schooling embodied in Laws 309 and 576 was part of the government's policy to resolve what were felt to be serious problems created by the increasing individual demand for tertiary education, especially into AEIs. In the last 20 years, and more so since the late sixties, the ranks of "candidates" seeking admission into AEIs and non-university level higher institutions have been increasing by the thousands.

This, taken in conjunction with the existence of a numerus clausus for admission into tertiary institutions, has caused serious bottlenecks at the point of entry into AEIs and "higher" schools, with all the attendant social and psychological consequences.

It is anticipated that the new arrangements will ultimately draw more students into the technical/vocational branch (secondary and higher). This will alleviate the pressures for university admission by allocating a number of students into the technical lycea and would strengthen the KATEEs.

2.3. Training of manpower for economic development - Economic Efficiency

A presupposition of the new policy is that the reform will provide the basic institutional structure for the education and training of various levels of manpower essential for increased productivity and economic development. This is felt to be especially crucial for the future of the country in view of its entry into the European Economic Community. The development benefits of technical education were stressed on several occasions by the Unter-Secretary of Education in his introduction of the Law-Plan. For example, at one point he stated :

"The strengthening and consolidation of technical and vocational education constitutes a necessary and basic presupposition for the future course and development of our country. The projected entry of Greece into the European Economic Community demands, in particular, that the country be equipped, qualitatively and quantitatively, with the appropriate manpower that will ensure her beneficial and equal participation in the European Community.**

And at another :

"Education is an investment in fixed capital since its creates the human resources which are required for the economic, social and cultural development of the country".***

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* Prefatory Statement to Law-Plan "On the Organization and Administration of Secondary and Higher Vocational and Technical Education", p. 2. Hereafter cited as Prefatory Statement - Vocational.

** Parliamentary Proceedings, op. cit., p. 3359.

*** Ibid., p. 3358. Similar views were expressed by spokesmen for EDEK, the major party of opposition. See, for example, the speech by E.P. Papanoutsos, Ibid., p. 3364.

2.4. Parity of Esteem and Equal Opportunities : Social Equity

As implied above, the aim of the government policy is to establish the preconditions so that the two types of lycea (general and technical) will enjoy "parity of esteem". To this end, several steps have been taken. Law 576 itself provides that "the graduates of technical and vocational lycea may be appointed to positions in the public sector or public enterprises for which the school-leaving certificate of a lyceum or a six-year gymnasium is the required qualification" (Article 51, par. 4). In addition to such employment opportunities, the two types of lycea are, by the same law, essentially equivalent for purposes of admission into AEIs (Article 10). Other measures to ensure parity include :

a) The system of examinations for entrance into the lycea (they are basically similar for both types of schools) ;
b) the qualifications of the teaching staff (teachers of the theoretical/scientific subjects as well as of the general ones hold university degrees/diplomas, while those of technological subjects and workshops are graduates of Technical Universities, KATEEs and SELETE) ; and
c) the curriculum (it is not narrowly and exclusively "vocational" but includes a balanced proportion of general and specialized subjects).*

Indeed, students opting for the technical/vocational lycea will have more advantages than their counterparts in the general schools. For, in addition to parity in terms of employment and access to AEIs, they will be better equipped to enter working life upon completion of their studies. Their education in the lyceum will be directed towards middle-level occupations which are increasingly in demand.

There is yet another side to the parity issue, the diversification of post-compulsory schooling and the technical education policy in general. From the government's standpoint this aspect of the reform will elevate the traditionally low status of technical education and will provide options, hence opportunities, for students to pursue an education according to their aptitudes and inclinations. "It should be made clear once and for all," the Under-Secretary for Education reiterated, "that the purpose of technical and vocational education is not to be of service to the academically poor students, but to those whose abilities and interests demand that they enter active economic life more rapidly and more productively".**

In this serse, one could say that the new policy will serve the interests not only of economic efficiency but of social equity as well.

2.5. Social stability

Among official circles there was general acceptance of the widely held view that the social status of technical/vocational schooling was comparatively low. It was believed that among other consequences the differential benefits (in terms of status, prestige, conditions of work, even earnings) that accrued from vocational as against general education exacerbated social conflict and discontent. The new arrangements, according to official spokesmen, will help in wiping out "preconceptions and distinctions, which oftentimes are the major cause of social conflicts and disturbances".***

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* For a clear statement on the government's rationale regarding parity of the general and technical/vocational lycea, see the article by G. Ralles, Minister of Education, at the time, entitled "New Institutions (Laws) in Education", To Vema, February 1979.

** Parliamentary Proceedings, op. cit., p. 3360.

*** Ibid., p. 3358. Also see statements by other supporters of government policy, Ibid., p. 3368.

3. Reaction to the New Policy

It was quite natural and quite within the democratic liberal tradition of the country that such an important step to reorganize technical and vocational education should have become the storm centre of debate and controversy. Political, professional, business, worker and other interest groups, students, parents, educational pundits, scholars and the press expressed their views in public forums, in mass media, and through deputations to the Minister and the Under-Secretary of Education as well as to other high-ranking public officials. A full analysis of this interesting aspect of the reform policy would take us far beyond the reasonable limits of this report. Suffice it to present some illustrative examples of the reaction to the policy and, in its turn, the government's response to such reaction.

Inside the Chamber of Deputies (the Voule) the National Democratic Centre, at the time the main party of opposition, through its official parliamentary spokesman generally supported the bill. As with Law 309/1976 on the reorganization of general education, there was considerable congruence on the more substantive aspects of the technical education Bill and its rationale between government and official opposition. On the negative side, however, the main party of opposition pointed out that, for the implementation of the measures, the reform left too much to too many "presidential decrees" ; there was no reference to private technical education ; and there had not been sufficient participation in the formulation of the policy by the industrial and the commercial world.*

The most critical reaction came from the political parties of the left, which marshalled similar arguments against the technical/vocational education bill as those presented in their opposition to the general education reforms.**

It is appropriate to point out that all sides of the political spectrum shared the belief that the needs of economic development mandated adjustments and investments in the educational enterprise, and more so in the technical/vocational component. The reform and development of education in general, and technical/vocational schooling in particular, were felt to be basic desiderata for economic growth and prosperity. Some members of the opposition raised questions not so much on the developmental role of technical education as on the differential distribution of the benefits that would result from increased economic productivity.

The government, through the Minister of Education, responded to the criticisms of the political opposition and reaffirmed the basic rationale of the new policy. The new organizational framework, according to the Minister, will provide the opportunity for the students to choose according to their aptitudes and inclinations. At the same time, it will give a large number of them appropriate training to enter the world of work immediately upon graduation. As to the role of the State vis-à-vis the individual in a liberal democracy, he had this to say :

> "The State performs its duties. It creates the framework and Parliament enacts laws. The Budget provides the necessary funds. There is nothing that we can do beyond that ; we cannot use compulsion. Only if they (parents and students) themselves realize where their interests lie, will we be able to succeed in this great undertaking that is under way".***

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* Parliamentary Proceedings, 23 February 1977, pp. 3363-3367.

** Parliamentary Proceedings, 23 February 1977, pp. 3372-3381, and 24 February 1977, pp. 3412-3413.

*** Parliamentary Proceedings, 24 February 1977, p. 3402.

Public and professional opinion outside Parliament in general reflected similar variations (for and against) as that inside. One sees the same concern regarding "parity of esteem" between the two main types of lycea, and the same fear lest technical/vocational education should be of lower quality than general and the refuge of the less privileged segments of the population.

Chapter 3.4

IMPLEMENTATION AND EVALUATION OF THE TECHNICAL/VOCATIONAL EDUCATION REFORM

A. IMPLEMENTATION

The task of implementing the new policy directives regarding technical/vocational education was as complex as it was immense. The policy goal of strengthening this type of education and bringing about what was considered to be a more appropriate balance in student flows between general and technical schooling required, among other things, that :

a) suitable building units and equipment be found ;
b) new curricula be designed that would satisfy the general and technical/vocational components of the programme ;
c) new textbooks be written or adapted from those available ;
d) qualified personnel be secured ; and
e) systematic efforts be made to allay public anxiety and ambivalence, and to create a more favourable attitude towards technical and vocational schools.

Technical and vocational lycea went into operation in 1977-78. The technical and vocational department of KEME has developed programmes of study and the syllabi for all three classes of these schools and for all areas of specialization, as envisaged by Law 576. Hence this coming year, i.e., 1979-80, all technical/vocational lycea will be functioning on a newly organized full three-year programme. At the same time, KEME has designed the curriculum of the two classes of the new technical and vocational schools, again as envisaged by Law 576.

Because of the large number of textbooks that are needed for this type of education, the preparation of such materials for the many areas of specialization has been assigned by the Ministry of Education to the Evgenidio Foundation, a well-known establishment with a highly respected tradition in the production of technical/vocational education texts. This year all textbooks for the three classes of the lyceum will have been prepared.

In 1978-79, there were 96 technical and 99 vocational lycea with 27,802 students enrolled in the first and second classes. Most of these schools operate in buildings which previously housed the schools for foremen. Five new technical and six vocational lycea will be added to the above in 1979-80.

The regional distribution of these schools is presented in Table 3.5 below.

Technical lycea offer several areas (sections) for specialization, e.g., mechanical, electrical, building, chemical-metallurgical, nautical-commercial and textile. The vocational lycea provide programmes in administration, agriculture, social welfare and applied arts.

Table 3.5

DISTRIBUTION OF TECHNICAL AND VOCATIONAL LYCEA
AND STUDENTS BY REGION, 1978-79

Region	Technical lycea		Vocational lycea		Total	
	Schools	Students	Schools	Students	Schools	Students
Central Greece	34	6,108	35	5,113	69	11,221
Peloponnesos	11	1,405	11	1,320	22	2,725
Ionian Islands	4	209	4	302	8	511
Epirus	5	339	5	472	10	811
Thessaly	5	1,135	5	1,135	10	2,270
Macedonia	22	3,670	22	3,109	44	6,779
Thrace	4	458	4	506	8	964
Aegean Islands	5	386	7	313	12	699
Crete	6	809	6	953	12	1,822
Total	96	14,579	99	13,223	195	27,802

Source : Ministry of Education, Directorate of Technical and Vocational Education.

B. EVALUATION

As with the general education law, it is not possible at this time to make a thorough or extensive assessment of the new technical/vocational measures. The implementation phase is still in progress and research on the various dimensions of technical/vocational education in Greece is extremely limited. What follows are :

a) some general thoughts based on inferences from anecdotal or other scanty evidence, and
b) an assessment of the likely effects (economic and social) of the changes, based on some previous evidence regarding the performance of the system thus far and the international literature on this subject.

1. The Contribution of Education to Greek Economic Growth

Two past attempts were made to estimate the extent to which education has contributed to Greek economic growth, one using data for the period 1951-1961 and the other for the period 1961-1971.* Both studies applied essentially the same technique, namely, "growth accounting", which was first used by Dension and then extended by others.** The technique amounts to measuring over time increments in the quantity and quality of productive factors like labour, physical capital and education and relating them to the growth of national income. The Bowles study concluded that in Greece education contributed a mere 3 per cent to the rate of growth of output during the 1951-1961 period. That is, if the economy grew at an average annual rate of growth of 6 per cent, education was responsible for 0.18 percentage points of it. The second study, by Psacharopoulos and Kazamias, concluded that

* See S. Bowles, "Growth effects of changes in labour quality and quantity, Greece 1951-1961" in H. Chenery, ed., Studies in Development Planning, Harvard University Press, 1971 ; and G. Psacharopoulos and A. Kazamias, Study of the Development of Post-Secondary Education, Greek Ministry of Education, 1978, section 17.1 (in Greek).

** See E.F. Denison, Why Growth Rates Differ ? The Brookings Institution, 1967.

the contribution of education to the growth of output in the 1961-1971 period was of the order of 2 per cent, thus validating the low contribution of education to Greek economic growth.

It appears that the major factor for the high rate of growth of modern Greece has been the accumulation of physical capital. The second study cited above has found that the corresponding statistic to the 2 per cent contribution of education to economic growth was 50 per cent for the case of capital.

Does this finding mean that the kind of human capital created by the Greek education system was not of the "right sort", or that it was of the general rather than technical kind ? This interpretation does not necessarily follow, as explained below.

2. The Economic Efficiency of Technical Education in Greece

In order to answer the question posed above, one needs to perform a more micro-oriented analysis of the costs and benefits associated with technical/vocational education, as aggregate growth accounting is inherently too micro-oriented. Such analysis has been attempted by Psacharopoulos and Kazamias in the aforementioned study and has yielded the following results.

On the benefits side, technical education in Greece confers economic benefits in excess of those of general education. Table 3.6 gives some comparative statistics in this respect.

Table 3.6

MEAN ANNUAL EARNINGS BY LEVEL AND KIND OF EDUCATION, 1977

(in drs.)

Educational qualification	General	Technical
Secondary school graduate	182,712	193,487
Post-secondary, technical college graduate	-	236,267
University graduate	231,105	-

Source : 1977 Employee Survey in Psacharopoulos and Kazamias, op.cit.

On the cost side, however, technical education is more expensive than general education. Table 3.7 compares the cost of the two kinds of education.*

Table 3.7

COST PER STUDENT BY LEVEL AND KIND OF EDUCATION, 1977

(in drs.)

Educational level	General	Technical
Secondary	9,258	13,963
Post-secondary technical college		
(a) before KATEE	-	21,980
(b) after KATEE	-	35,848
University	31,110	-

* This is the marginal economic (rather than average accounting) cost. It represents the out-of-public-funds expenditure associated with accommodating an extra student of the respective educational level. See P.H. Coombs and J. Hallak, Managing Educational Cost, Oxford Univ. Press, 1972.

Two cost figures are presented for post-secondary technical education : one referring to the period before the institution of KATEEs and one after the KATEEs.

The combination of these costs and benefits gave the rates of return for technical education shown in Table 3.8 which are also compared to some levels of general education.

Table 3.8

THE PROFITABILITY OF INVESTMENT IN EDUCATION

Educational level	General	Technical
3 last years of secondary	6	10
Technical colleges (pre-KATEE cost)	-	6
University	5	-

Source : Psacharopoulos and Kazamias, op.cit., Tables 19.1 and 19.4, pp. 269-271, 277-281.

Two remarks follow from the orders of magnitude given in Table 3.8. First, on a relative basis, secondary technical education appears to be more profitable than secondary general and hence the policy switch towards technical education appears to be justified. On an absolute basis, however, the figures shown in Table 3.8 are very modest. Certainly, there are investment areas in the Greek economy exhibiting a yield above 10 per cent.

The second remark refers to the fact that figures as the ones cited in Table 3.6 arehistorical, i.e., they are based on the past cost of schools and earnings history of individuals. When a major structural change takes place, as the one represented by Law 576/1977, both costs and benefits associated with different kinds of education are likely to alter in the future. For example, if technical lycea are to be of the same status and quality as the general ones, the per-student cost of technical education will rise relative to the general stream. Also, if technical lycea produce graduates of different quality in the future, this will certainly affect the future monetary reward structure (read productivity) in the Greek economy. It is impossible to predict what the net outcome will be. When considering educational expansion under structural change, the returns to education may go up, go down or simply (although unlikely) remain the same. It is for this reason that one should consider alternative non-monetary criteria when analysing the likely welfare effects of an educational reform.

4. Status and Equity

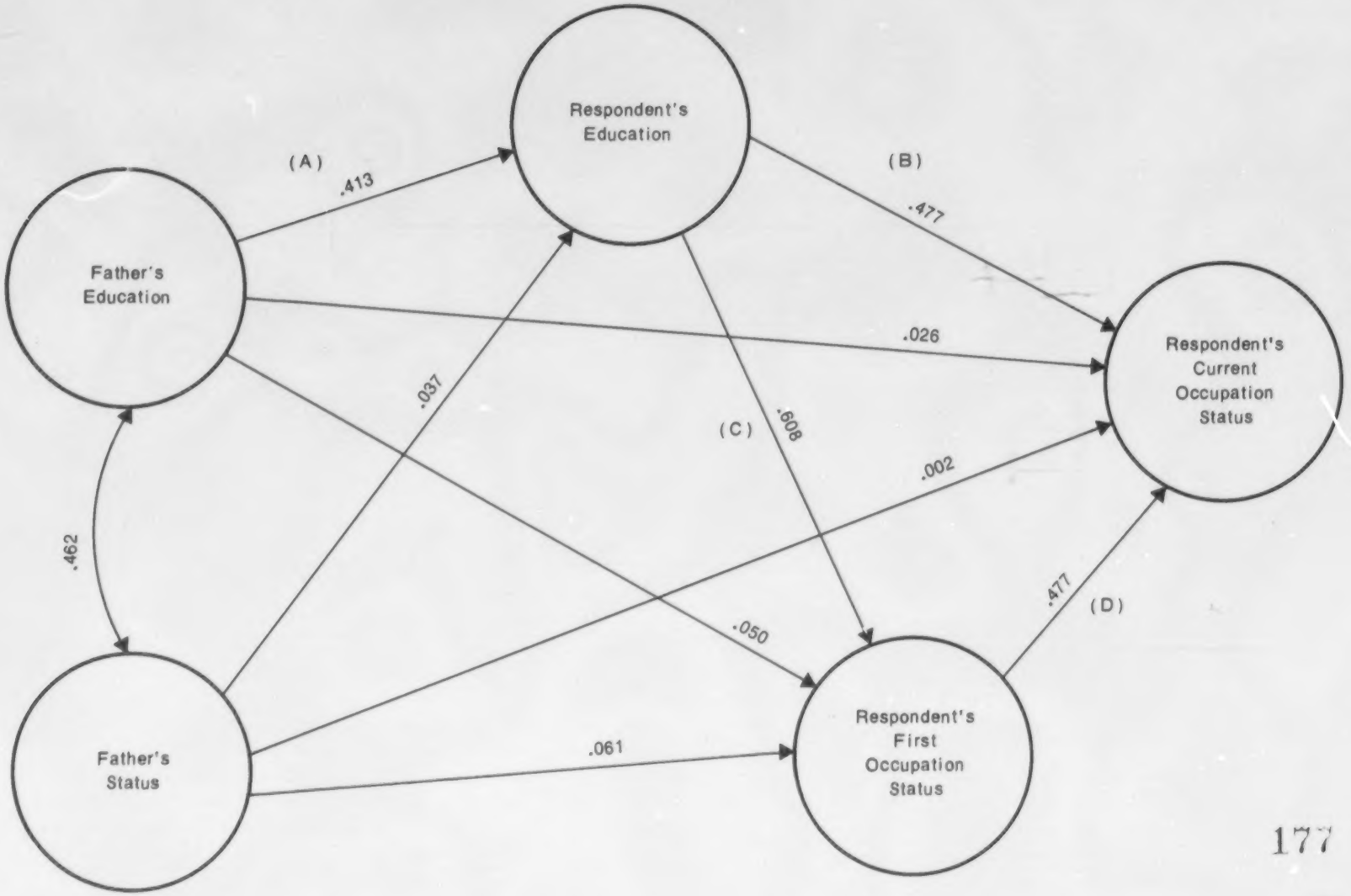
Law 576/1977 must have an equalizing effect so far as the monetary rewards are concerned. The reason is that, according to evidence cited above, the provision of technical education has an income-augmenting effect. Therefore, it pushes the person who receives it up to a higher income level with the result of lowering a given income inequality statistic (such as the variance of the logarithm of earnings considered earlier in the case of general education).

In the case of technical education, however, another non-monetary dimension must be brought into the analysis. This is the status-granting role of schooling. As in every society, education in Greece is seen by the public as a potent vehicle for upward social mobility. In Figure G, arrows A,B,C and D are associated with strong path coefficients, whereas father's status exerts much less influence on subsequent success in life.* Until

* The data base refers to those aged 25-35 in the 1977 employee survey in the Psacharopoulos and Kazamias study.

Figure G

THE STATUS GRANTING ROLE OF EDUCATION



Source : G. Psacharopoulos and A. Kazamias, *op. cit.*

the period of the recent reforms, technical education in Greece did not enjoy the same prestige as general education.

Some of the main reasons for the reluctance to follow a technical course have been :

i) fear of not entering into higher education ;
ii) fear of entry into professions with low social prestige ;
iii) technical/vocational education was generally of lower quality and status than general education ;
iv) as evolved and institutionalized, the Greek concept of liberal education and the educated man was defined in general, humanistic-cum-literary terms. Technical or vocational schooling was not regarded as true education (paideia, culture).

The 1977 employee survey in the Psacharopoulos and Kazamias study has quantified this "fear". Those with higher technical education enter lower status jobs, remain at a lower status and are not as occupationally upwardly mobile in comparison with those who have a university education.

Table 3.9

THE OCCUPATIONAL STATUS PERFORMANCE
OF DIFFERENT KINDS OF GRADUATES

Educational level and kind	Mean first occupation status	Mean eventual occupation status	Percentage changed jobs
General education			
- primary	32	32	47
- 3 years secondary	35	35	50
- secondary graduate	43	45	63
- university	56	59	71
Technical education			
- lower	40	41	53
- secondary	45	48	52
- higher	52	55	58

Source : Based on the 1977 employee survey in Psacharopoulos and Kazamias, op.cit.

To the extent that Law 576/1977 will push some pupils into a stream they (and their family) do not want, its effects will be inequitable. However, this does not deny the fact that the quality of higher education instituted by the Law will be different from the one offered in the past and hence it might be gradually accepted by the public at large. It is not possible to speculate on the number of years it would take for the required change in social mentality.

5. Employment Effects

How does the incidence and duration of unemployment compare for the general versus technical education graduates ? Once more, partial evidence exists regarding the old system :

- In a survey of 25 employers in 1977 the clear preference of those hiring was for "general, problem-solving qualities" of the job candidate rather than specific practical training.*

* See Psacharopoulos and Kazamias, op.cit.

- The 1977 employee survey already referred to had some data on unemployment for those who had acquired a technical education degree from 1971 onwards. As shown in Table 3.10, secondary technical education is associated with longer search time for finding a first job and with unemployment thereafter.

Table 3.10

MEAN SEARCH TIME FOR FINDING FIRST JOB AND UNEMPLOYMENT DURATION

(in months)

Technical education level	Search time	Unemployment duration
Lower	2.4	4.7
Secondary	5.0	7.3
Higher	1.4	6.4

Source : 1977 Employee Survey, Psacharopoulos and Kazamias, op.cit.

Once more, this finding that refers to the recent past does not mean that the future output of secondary technical schools (i.e. the technical lycea) will be necessarily associated with increased unemployment as the quality of the graduates might be different.

Chapter 3.5

THE EDUCATIONAL REFORM THAT IS TAKING PLACE : AN EPILOGUE

In the twentieth century, and more so since the Second World War, several attempts have been made by successive governments to modify the Greek education system in order to adapt it to changes in other sectors of the society and to meet the challenges of a modernizing and still consolidating nation-state. Yet, for a variety of reasons - political, ideological, social and economic - such efforts have been thwarted, or at best have had very limited success. Educational reform, as this aspect of public policy has come to be known, has been found to be highly elusive and has proved to be one of the most intractable problems that the country has had to face in its turbulent recent history. The discouraging story of this truculent problem has been epitomized rather poignantly in an often-quoted title of a recent book on the subject, which can be translated as "The Educational Reform that Never Was" or "The Educational Reform That Has Not Taken Place".

The current reforms, reviewed in this report, and under way since 1976, presage a new era in Greek education and the broader social, cultural and economic development of the country. They are the most ambitious and extensive ever attempted in this country ; they are supported by a broad spectrum of professional and public opinion ; and the government, by word and deed, has often expressed its commitment to them as well as its determination to ensure that they are implemented. Moreover, as a result of certain political, socio-economic, cultural and educational circumstances, Greek pedagogy has been infused with new ideas, while the sharpness of certain traditional controversial issues, e.g., the language question, has been considerably blunted. The necessary basic preconditions have been established and are being consolidated. There is every reason, therefore, to be optimistic and to believe that the educational reform that **is taking** place will not suffer the fate of previous efforts.

It would be difficult and perhaps superfluous to provide a comprehensive summary of the aims of the current reforms, the policy changes they involved, the measures adopted to implement them, the reactions to them, the quantitative dimensions of the reforms and the prospects for the future. Instead, it would be more useful to conclude this review by restating some of the main thrusts of the reform movement and some of the salient features of the broader conceptual framework within which it was encapsulated.

At one level, major policy decisions, e.g., the extension of compulsory education from 6 to 9 years, the bifurcation of secondary education into common gymnasia and selective lycea, the diversification of upper secondary into general and technical lycea and vocational schools, and the new system of examinations for admission into the lycea and the universities, have laid the foundations for a new institutional framework that will alter the structure and orientation of the Greek school system. Among other salutary effects, these measures will alter the shape of the educational pyramid (by widening the middle rungs for both boys and girls) ; they will break down the monolithic type of secondary school, namely, the six-year traditional gymnasium and its monopolithic control of access into post-secondary institutions ; they will strengthen the hitherto atrophied side of the

public system of technical and vocational education ; they will remove barriers for uniform nine-year general education for all ; and they will ease the transition from school to work and from secondary to higher education.

At another level, changes in the content of education, such as the establishment of the demotike as the language of instruction, the use of translations of ancient Greek classics as well as the introduction of technological subjects and cultural activities in the new gymnasium, the revamping of the curriculum and the re-writing of textbooks, the new programmes for the in-service training of teachers (SELME and SELDE), the introduction of electives in the lycea, and the already mentioned new system of examinations, have established the necessary preconditions for the qualitative upgrading of the schools and the reorientation of Greek pedagogical culture.

These educational policies and reforms have been inspired and activated by similar ideas, principles and concerns as comparable changes in other Western liberal democracies. Educational reformers, political leaders and social analysts in these societies have frequently used the terms "modernization" and "democratization" as concepts to describe specific policy changes and as organizing guiding principles towards which reform efforts have been directed. The same conceptual and ideological categories have been employed in connection with the educational reforms that are taking place in Greece today.

All the innovations and changes analyzed in this report aim at making the education system more efficient by adapting or adjusting historically evolved educational institutions, ideas and practices to the social, economic, cultural and political demands of a modernizing and rapidly developing society. At the same time, there is the realization that a modern Western education system must also be a democratic system. The reforms seek to expand opportunities and to provide options commensurate with variations in individual natural endowments and demonstrated achievement. Educational modernization and democratization have been arduous tasks in all liberal societies. They have been more so in Greece, a country with deeply entrenched traditions, very limited resources, conflicting ideologies and a history of educational conservatism as well as frequent political changes. But since 1974, the country has enjoyed unprecedented stability ; educational and public opinion has been more receptive to modern currents of thought, and as noted earlier, the political leadership of the country has repeatedly stressed that it is determined to see that the reforms are successfully carried out.

LA REFORME ET LA POLITIQUE DE L'ENSEIGNEMENT EN GRECE DEPUIS 1957 :

APERCU GENERAL

LA REFORME ET LA POLITIQUE DE L'ENSEIGNEMENT EN GRECE DEPUIS 1957 : APERCU GENERAL

Depuis une vingtaine d'années, les pouvoirs publics ont lancé, à trois reprises au moins, de vastes trains de mesures pour réorganiser l'enseignement et en modifier les programmes conformément aux nouvelles conditions économiques et sociales du pays, aux revendications formulées de longue date et aux plans de développement économique. Une réforme de l'enseignement paraissait, en effet, indispensable au développement économique et social de la Grèce. Il sera utile de donner un aperçu général de cette réforme, de ses origines et de ses progrès pendant les vingt dernières années afin que les mesures adoptées et les questions qui se posent actuellement puissent être analysées et évaluées en fonction des circonstances dans lesquelles elle a évolué et des principes dont elle s'inspire.

On peut distinguer trois périodes dans le grand courant de réforme de l'enseignement :

(a) de 1957 à 1963, sous le premier gouvernement formé par M. Caramanlis

(b) de 1964 à 1965, sous le gouvernement formé par M. Papandréou

(c) de 1974 à 1977, sous le deuxième gouvernement de M. Caramanlis, puis sous celui du parti "Nouvelle démocratie".

Il convient de préciser que, tout au long de ces années, le principal but visé était de modifier le système scolaire pré-universitaire, en d'autres termes, les secteurs de l'enseignement général et professionnel (primaire et secondaire). Il en fut notamment ainsi pendant les deux premières périodes. Depuis 1974, de nombreuses voix se sont élevées en faveur d'une réforme de l'enseignement post-secondaire, c'est-à-dire des universités et des établissements d'enseignement supérieur non universitaires.

Un projet de loi-cadre (nomos plaisio), élaboré en 1975, fit l'objet de plusieurs révisions. Ses principales dispositions furent adoptées pendant l'été 1978 sous la forme de la loi n° 815 portant réglementation de certaines questions relatives à l'organisation et au fonctionnement des établissements universitaires.

En outre, et on ne saurait omettre de le mentionner ici, le décret-loi n° 652, paru dans le Journal officiel d'août 1970, portait création du Centre d'enseignement technique supérieur (KATEE) : c'était là une grande innovation dans la politique de l'enseignement de l'époque.

1. LES ANNEES 1957 A 1963 : LES DEBUTS

Parmi les événements les plus importants de cette première période qui concernent directement ou indirectement le secteur de l'enseignement, on citera en particulier les suivants :

(a) L'institution du Comité de l'enseignement, qui élabora en 1958 un rapport général, intitulé : Conclusions du Comité de l'enseignement.

(b) L'adoption, en 1959, de plusieurs lois sur l'enseignement, en particulier la loi n° 3971 sur l'enseignement technique et professionnel, l'organisation de

l'enseignement secondaire et l'administration de l'enseignement, et la loi n° 3973 sur l'unification et la coordination de l'administration de l'enseignement professionnel (adoptées toutes deux en septembre de cette année).

(c) La publication de toute une série de rapports établis par le Service d'études et de coordination du ministère de l'Instruction publique à la suite de l'adoption, en 1959, des lois mentionnées ci-dessus.

(d) La parution du rapport de l'OCDE sur la Grèce, qui avait été effectué au titre du "Projet régional méditerranéen".

(e) L'institution, en 1961, du Centre de planification et de recherches économiques (KEPE), qui avait notamment pour mandat : (i) d'établir une planification scientifique de l'allocation des ressources en vue du développement économique, (ii) d'assurer la formation économique et technique du personnel appelé à occuper de hautes fonctions dans l'administration publique et dans l'industrie.

Le développement économique et la réforme de l'enseignement

Les conséquences du développement économique pour l'enseignement et, inversement, l'importance de l'instruction pour le développement économique, figuraient parmi les principaux thèmes évoqués dans les rapports mentionnés ci-dessus et dans les déclarations gouvernementales. "En l'absence d'une bonne instruction", faisait observer le Comité de l'enseignement en 1958, "il sera impossible d'accroître notre revenu national et d'assurer la prospérité et la stabilité de la société. C'est pourquoi il est indispensable de tenir compte, dans la politique de l'enseignement, des exigences que les objectifs assignés à la croissance économique font peser sur l'école, dont la mission est de "développer les ressources humaines", autrement dit, de dispenser une formation aux connaissances et aux techniques nécessaires. Ce fut à partir de ces considérations que des spécialistes grecs et étrangers, les chercheurs chargés du "Projet régional méditerranéen", le Service d'études et de coordination du ministère de l'Instruction publique et le KEPE estimèrent les besoins de main-d'oeuvre en fonction des plans de développement économique et recommandèrent des réformes en vue de tenir compte des besoins de l'économie en matière de main-d'oeuvre et dans d'autres domaines. Le KEPE s'exprimait en ces termes dans une étude de 1963 :

"Il est essentiel de réformer le système d'enseignement sous une forme qui garantisse un apport incessant de jeunes diplômés dotés d'une bonne formation technique, adaptée aux exigences de l'industrie, et de mettre au point les mesures nécessaires pour les aiguiller vers les branches hautement productives et en expansion de l'industrie. Le système d'enseignement grec est très déséquilibré du point de vue de la formation aux activités industrielles, et les mesures prises jusqu'à présent par les pouvoirs publics ont largement eu pour effet de diriger les jeunes diplômés vers des branches d'activité anciennes, en stagnation et peu productives."

Ce principe d'un "enseignement au service du développement économique" a eu plusieurs conséquences pour la politique de l'enseignement. La plus spectaculaire d'entre elles a été l'expansion et la coordination sans précédent de l'enseignement technique et professionnel, qui se trouvait totalement en marge du secteur de l'enseignement public, puisqu'il était en majeure partie dispensé par des établissements privés sous forme de cours du soir, ou du ressort de ministères autres que celui de l'Instruction publique. De l'avis général, il était insuffisant, aussi bien en quantité que du point de vue de la qualité. C'est ainsi qu'en 1958-59, 39.824 jeunes gens au total étaient inscrits dans une école d'enseignement professionnel, contre 239.648 dans les gymnases.

Pour remédier à cette situation, les pouvoirs publics cherchèrent à réorganiser l'enseignement professionnel : ils établirent une distinction entre les écoles

d'enseignement professionnel et technique inférieures, moyennes et supérieures et placèrent tous ces établissements sous la supervision de l'Etat. En outre, la loi n° 3971 portait création de l'école normale de professeurs de l'enseignement professionnel et technique (SELETE), d'une Direction générale de l'enseignement technique auprès du ministère de l'Instruction publique, ainsi que de deux Conseils de l'enseignement supérieur chargés des programmes, des manuels et de l'administration du personnel.

L'expansion de l'enseignement et la révision des programmes en vue de les rendre plus conformes aux exigences de la vie moderne sont la deuxième conséquence qui découle de l'application du principe mentionné plus haut.

Les propositions présentées par le Comité de l'enseignement et les décisions prises par les pouvoirs publics au sujet de l'organisation des écoles secondaires semblent, les unes et les autres, s'être elles aussi inspirées de considérations d'ordre technique et économique. Jusqu'alors, le gymnase monolithique, dans lequel les études, essentiellement classiques, duraient six ans, occupait une place prédominante dans l'enseignement secondaire, mais on en était venu à penser que cet enseignement essentiellement classique n'était plus à même de satisfaire toutes les exigences de la société hellène en pleine mutation. En particulier, le gymnase entravait toute expansion notable de l'enseignement scientifique, technique ou professionnel. En raison de l'importance essentielle que lui accordaient les milieux culturels, pédagogiques et professionnels (en tant que symbole de la "bonne instruction", mais aussi parce qu'il était la principale voie d'accès à l'université et, par conséquent, aux postes élevés), cette filière était extrêmement recherchée par les élèves. De nombreux adolescents - dont la plupart, à en croire la rumeur publique, ne possédaient pas les aptitudes requises telles qu'elles se dégagent des notes obtenues aux examens - étaient aiguillés vers le gymnase. Près de la moitié de ceux qui y entraient abandonnaient au bout de deux ou trois ans sans la moindre des qualifications professionnelles exigées sur le marché. Seule une fraction de ceux qui persévéraient parvenaient à passer avec succès l'examen d'entrée à l'université. Les autres avaient du mal à trouver un emploi. Cependant, à cause de la valeur accordée au certificat de fin d'études secondaires, ses titulaires s'attendaient tous à trouver un bon emploi.

L'organisation du système scolaire

Pour éliminer ces anomalies, les pouvoirs publics s'efforcèrent de réorganiser et de réorienter l'enseignement secondaire. Ils préconisaient que le gymnase, dans lequel les études duraient six ans, fût scindé en deux cycles de trois ans qui se compléteraient, contrairement aux recommandations du Comité de l'enseignement, qui avait conseillé la création de deux cycles indépendants dispensant chacun un programme complet. Le gouvernement prévoyait un premier cycle d'études générales et un second cycle d'études différenciées. Le programme du premier cycle devait être identique dans tous les établissements et se fonder sur le principe d'un enseignement classique général qui englobe, par définition, des matières telles que le grec ancien et moderne, la religion et les langues vivantes. En outre, il comprendrait les mathématiques, la physique, l'histoire, la géographie, des travaux manuels, la musique, l'éducation physique et l'instruction civique. Au cours de ces trois années, les professeurs auraient à diagnostiquer les intérêts et les aptitudes des élèves afin que ceux-ci puissent recevoir l'orientation scolaire et professionnelle qui leur convenait. Tous les élèves qui auraient terminé avec succès ce premier cycle obtiendraient un certificat d'études qui les habiliterait à passer au deuxième cycle de l'enseignement secondaire ou à une école d'enseignement technique et professionnel, ou encore, à prendre un emploi de bureau subalterne. Soucieux de rendre l'enseignement plus souple et plus équitable et

d'améliorer l'orientation professionnelle, les pouvoirs publics prévoyaient que le deuxième cycle d'études secondaires comprendrait huit sections ou écoles différentes : études purement classiques, études scientifiques, études techniques, études économiques, études agricoles, études navales, langues étrangères et économie domestique. Chacune de ces sections ou écoles aurait une double mission à accomplir, en ce sens qu'elle devrait préparer les élèves à la fois à faire des études universitaires dans une faculté de sa spécialité et à prendre directement un emploi dans l'une des professions correspondant à son enseignement. Tous les certificats de fin d'études secondaires (apolyteria) devaient être reconnus au même titre, aussi bien pour l'admission à l'université que pour celle à des établissements d'enseignement supérieur non universitaire. Afin d'atteindre cet objectif et de veiller à ce que tous les élèves puissent acquérir une culture classique, un certain nombre de matières (grec ancien et moderne, une langue vivante, physique et mathématiques) seraient obligatoires dans toutes ces écoles.

Quelques réformes furent adoptées à la suite de la publication de ces lignes d'orientation, mais dans l'ensemble, leur portée fut loin d'être aussi grande que ne le laissaient présager les prévisions optimistes de l'époque. Sur le plan administratif, deux directions générales (l'une pour l'enseignement général, l'autre pour l'enseignement professionnel) furent instituées auprès du ministère de l'Instruction publique. Le Service d'études et de coordination, créé en 1956 pour faire des recherches sur l'enseignement et assister le ministère de ses conseils dans toutes les questions touchant à la législation, prit apparemment un regain d'activité. Quelques nouvelles catégories de gymnases (écoles agricoles, techniques, etc.) furent organisées et six écoles secondaires techniques ouvrirent leurs portes en province. Dans le programme du premier cycle secondaire, un nombre un peu plus élevé d'heures fut réservé aux mathématiques et à la physique et une petite place y fut accordée à l'instruction civique, au secourisme et à des "études écologiques". De nouveaux programmes d'études furent mis au point pour le deuxième cycle du gymnase, mais aucun changement notable n'y fut apporté au rapport entre les matières classiques et les matières scientifiques, les études littéraires et linguistiques et les autres domaines, et le nombre d'heures prévues pour les sujets jugés essentiels du programme - par exemple, le grec ancien et moderne, l'histoire, la géographie, la philosophie et les mathématiques - demeura à peu près le même qu'auparavant. Quoi qu'il en soit, même les quelques changements envisagés par les artisans de la réforme ne dépassèrent pas le stade de projet. A l'actif du bilan, il convient toutefois d'inscrire la création du SELETE, centre de formation de professeurs d'écoles professionnelles et techniques, qui est toujours en activité.

La question du grec moderne

La question du grec moderne a été un sujet de controverse dont les origines remontent loin dans le passé et qui a eu de vastes répercussions politiques et sociales. En l'occurrence, les débats roulaient sur la place que l'enseignement scolaire devrait réserver aux deux formes de grec moderne, à savoir, la katharevousa (langue "pure") et la demotiki (langue populaire). Les membres du Comité de l'enseignement émirent des avis différents. La majorité d'entre eux estimaient que la demotiki, libérée de toute forme dialectale, devrait être la langue de l'enseignement primaire. Toutefois, le Comité recommanda aussi d'inclure dans les manuels de cinquième et sixième années des textes écrits en katharevousa simplifiée, mais de ne pas enseigner "systématiquement" la grammaire de la katharevousa. Dans l'enseignement secondaire du premier cycle, en revanche, la katharevousa serait enseignée systématiquement, mais les élèves devraient aussi lire des textes d'auteurs reconnus de la littérature grecque moderne "afin qu'ils cultivent aussi la langue populaire".

2. LES REFORMES DE L'ENSEIGNEMENT DE 1964 A 1965

Le gouvernement de l'Union centrale, dirigé par M. George Papandréou (de 1964 à 1965), accorda la priorité absolue à la réforme de l'enseignement, question qui a toujours revêtu un caractère politique en Grèce. En 1964, le Parlement adoptait la loi n° 4379 sur l'organisation et l'administration de l'enseignement général (primaire et secondaire). On retrouve, dans la réforme de l'enseignement élaborée au cours de ces deux années, des idées, des principes et des sujets analogues à ceux qu'avait sanctionnés la législation pendant la période que nous venons d'examiner. En particulier, les textes de la réforme de M. Caramanlis stipulaient déjà que l'enseignement technique et professionnel devait être étendu et amélioré et que ce type d'études revêtait une grande importance pour le développement économique.

Cependant, cette deuxième période fut aussi marquée par de grandes innovations, et pendant ces deux années, les questions déjà formulées furent redéfinies de façon plus précise. C'est ainsi que les mesures du gouvernement ont porté tout particulièrement sur l'expansion de l'enseignement, la question du grec moderne, l'aménagement des programmes et le système de sélection (examens).

La démocratisation de l'enseignement : l'expansion des possibilités d'instruction

Certaines mesures visaient à élargir les possibilités d'instruction, et le gouvernement les justifiait pour des raisons d'ordre politique, social et économique. Elles étaient jugées conformes aux buts d'une politique démocratique libérale (liberté, égalité et équité) et aux exigences de la rentabilité économique (développement et pleine utilisation des ressources humaines). Elles stipulaient en particulier :

1. la gratuité de l'enseignement dans tous les établissements publics, y compris les établissements d'enseignement post-secondaire ;
2. une scolarité obligatoire d'une durée de neuf ans (de 6 à 15 ans) (cette mesure n'est pas entrée en vigueur) ;
3. la suppression des examens de passage de l'école primaire au nouveau gymnase (trois ans d'études) ;
4. la subdivision de l'enseignement secondaire général en un gymnase d'études générales non sélectives d'une durée de trois ans, qui constitue un cycle complet et auquel les élèves accèdent immédiatement après l'école primaire, et un lycée hautement sélectif qui constitue également un cycle complet d'une durée de trois ans ;
5. la création du certificat de fin d'études secondaires (akademaikon apolytirion), conçu sur le modèle du baccalauréat français et de l'Abitur allemande, qui devait éliminer une partie des difficultés que suscitaient les examens d'admission aux établissements d'enseignement post-secondaire. Les examens sanctionnés par ce certificat devaient (a) être organisés à des dates prescrites dans les diverses villes du pays, et non plus uniquement à Athènes et à Salonique, comme c'était le cas auparavant, (b) porter sur les matières enseignées au lycée, (c) être notés par les professeurs de lycée et non par des professeurs d'université.

Le programme d'études

Dans la réforme des programmes d'études, le gouvernement de M. Papandréou est allé plus loin que celui de son prédécesseur pour deux points importants, à savoir la question du grec moderne et l'étude du grec ancien. Dorénavant, la demotiki devait être "librement utilisée oralement et par écrit" à tous les niveaux de l'enseignement sous une forme correcte et non dialectale et devenir la langue officielle à l'école primaire, aussi bien pour les leçons que dans les manuels. Les élèves des deux dernières années

de l'école primaire seraient familiarisés avec la katharevousa, dont la grammaire et la syntaxe seraient enseignées au gymnase et au lycée. Pour ce qui est du grec ancien, la loi n° 4379 stipulait qu'au gymnase, "les textes de la littérature grecque classique seraient étudiés dans des traductions reconnues" et que l'étude systématique du grec ancien, c'est-à-dire sa grammaire et sa syntaxe, commencerait en première année du lycée (dixième année d'école).

L'enseignement post-secondaire, la recherche et la formation des enseignants en cours d'emploi

Le gouvernement s'intéressait aussi activement à l'enseignement post-secondaire, secteur qui, de l'avis général, appelait d'urgence des améliorations. La formation des enseignants, dispensée dans les "Académies pédagogiques", constituait l'une des branches de l'enseignement supérieur non universitaire. Aux termes de la loi n° 4379, le cycle d'études de ces écoles, jusqu'alors de deux ans, devait être porté à trois ans, et des programme spéciaux de formation intensive devaient être lancés pour remédier aux pénuries de professeurs d'école secondaire dans des matières telles que la physique, les mathématiques et les langues vivantes.

Un projet de loi visant la création de nouvelles universités fut soumis parce que - comme il était dit dans son exposé des motifs - le pays avait besoin d'un personnel hautement qualifié pour assurer son progrès économique et intellectuel. Quatre nouvelles universités y étaient envisagées (à Athènes, en Crète, à Patras et à Janina), ainsi qu'une école polytechnique à Larissa, qui serait une émanation de celle de l'Université de Salonique. Ce projet de loi fut toutefois rejeté, tout comme celui sur l'enseignement technique et professionnel.

Enfin, au cours de cette période, un institut pédagogique qui relève du ministère de l'Instruction publique ouvrit ses portes à Athènes. Parmi ses tâches figurent des recherches sur l'enseignement, la formation en cours d'emploi des enseignants et l'aménagement des programmes.

Commentaires sur les réformes scolaires de 1964 et 1965

Les réformes apportées en 1964-1965 étaient très générales et, à certains égards, progressistes.

D'une part, elles se heurtaient aux limites tracées par la tradition solidement enracinée d'un enseignement essentiellement classique, humaniste et littéraire, réservé à une élite et hautement sélectif. D'autre part, elles s'inspiraient d'une idéologie qui existait à l'époque dans la plupart des pays du monde occidental et suivant laquelle la réforme de l'enseignement était conçue essentiellement du point de vue pédagogique, c'est-à-dire comme une transformation de l'école, sans que l'on se préoccupât beaucoup des modifications économiques et sociales qui se produisaient simultanément.

3. LA REFORME ACTUELLE

Le courant de réforme actuel, qui a commencé après la chute de la junte militaire et le retour à un gouvernement constitutionnel en 1974, a été sanctionné dans la Constitution de 1975 et dans les principales lois sur l'enseignement qui ont été adoptées depuis lors.

En vertu de l'article 16 de la Constitution, l'enseignement est du ressort de l'Etat. Il a pour but de développer les facultés "intellectuelles, mentales, professionnelles et physiques des Grecs, d'éveiller leur sens civique et religieux et d'en faire des citoyens libres et conscients de leurs responsabilités". Aux termes de ce

même article, la scolarité obligatoire ne peut durer moins de neuf ans et "tous les Grecs ont droit à une instruction gratuite dans les établissements d'enseignement de l'Etat de tous les niveaux". En outre, la Constitution stipule qu'il appartient à l'Etat de fournir "un enseignement professionnel et toute autre catégorie d'enseignement spécial d'une durée qui ne peut être inférieure à trois ans dans des établissements d'enseignement supérieur" et de "préciser les droits à l'emploi des diplômés de ces établissements".

On peut résumer et classer comme suit les principaux plans et textes législatifs qui ont été arrêtés au cours de la présente période :

A. Enseignement général, technique et professionnel

Trois lois importantes ont été adoptées dans ce domaine : (a) la loi n° 309/76 sur l'organisation et l'administration de l'enseignement général, (b) la loi n° 576/77 sur l'organisation et l'administration de l'enseignement professionnel et technique secondaire et supérieur et (c) la loi n° 682/77 sur les écoles privées d'enseignement général et les internats.

Les principales dispositions de ces textes législatifs qui concernent l'enseignement public se présentent comme suit :

(a) La durée de la scolarité obligatoire a été portée de six à neuf ans (de 5½ à 14½ ans).

(b) L'enseignement secondaire a été subdivisé en :

(i) un gymnase d'études générales obligatoires d'une durée de trois ans (de 11 ans à 14 ans), suivi de

(ii) un lycée d'études différenciées, classiques, générales ou techniques, d'une durée de trois ans (à partir de l'âge de 15 ans), ou de l'une des écoles professionnelles nouvellement instituées dans lesquelles les études durent un ou deux ans (à partir de l'âge de 15 ans).

(c) Les écoles professionnelles élémentaires (auxquelles les élèves étaient admis à l'âge de 11 ans révolus) ont été supprimées.

(d) En outre, l'enseignement technique et professionnel comprendra des écoles techniques et professionnelles supérieures qui dispenseront un cycle d'études de deux à trois ans et dont la plupart seront des centres d'enseignement technique et professionnel supérieur (KATEE), dans lesquels les études durent trois ans.

(e) La demotiki, dépouillée de toute forme dialectale et incorrecte, sera obligatoirement utilisée dans les cours et les manuels à tous les niveaux d'enseignement et dans toutes les catégories d'établissements.

(f) Au gymnase, les textes de la littérature grecque classique seront étudiés dans des traductions en grec moderne.

B. L'aménagement des programmes, les recherches et la formation des enseignants en cours d'emploi

(a) Adoption de la loi n° 186/75 portant création du Centre d'études sur l'enseignement et de formation en cours d'emploi (KEME).

(b) Création de l'école de formation en cours d'emploi des professeurs d'école secondaire (SELME) et de l'école de formation en cours d'emploi des instituteurs (SELDE).

(c) Introduction de cours à option dans les programmes de deuxième et troisième années du lycée et d'autres innovations, telles que la télévision scolaire, l'orientation scolaire et professionnelle, l'enseignement de matières techniques au gymnase et diverses activités culturelles.

C. Admission aux universités et aux établissements d'enseignement supérieur non universitaire fondée uniquement sur les résultats scolaires et les notes obtenues aux examens panhelléniques.

D. Enseignement supérieur (universitaire et non universitaire)

(a) Adoption de la loi n° 815/1978 sur l'organisation et l'administration des établissements d'enseignement post-secondaire.

(b) Présentation du projet de loi sur les Académies pédagogiques (écoles normales d'instituteurs).

E. Commissions et groupes d'études

L'élaboration des projets de loi et l'adoption des lois ont été précédées ou accompagnées de la création de commissions et de groupes d'études, chargés d'examiner diverses questions relatives à l'enseignement, par exemple : l'aménagement des programmes, l'orientation professionnelle, les conséquences qu'aurait la prolongation de la scolarité obligatoire dont la durée avait été portée à neuf ans, les méthodes pédagogiques, les études universitaires, la réorganisation des études et des programmes universitaires en sciences sociales, la planification et l'expansion de l'enseignement post-secondaire.

Compte tenu (a) des sept années de dictature militaire pendant lesquelles les droits constitutionnels et les libertés civiques furent suspendus, (b) du climat politique actuel dans les pays démocratiques du monde occidental et (c) de l'espoir de la Grèce (actuellement devenu une certitude) d'adhérer aux Communautés européennes, il n'y a pas lieu de s'étonner que les principes de la démocratisation, de la modernisation et de la rentabilité aient été abondamment cités et invoqués dans les ouvrages relatifs à la réforme de l'enseignement et dans les controverses que celle-ci a suscitées.

L'enseignement et la démocratie

Lorsque le projet de loi sur l'enseignement général (devenu, après son adoption, la loi n° 309/1976) fut soumis au Parlement hellène en avril 1976, l'orateur chargé de le présenter déclara que ce texte législatif "s'inspirait à tous les égards de principes démocratiques et populaires" et que l'ensemble des mesures de réforme constituait "le fondement de la démocratie".

Diverses dispositions ont été justifiées, isolément ou en bloc, au nom de la démocratisation. Cela a été notamment le cas pour celles qui stipulaient (a) la prolongation de la durée de la scolarité obligatoire, (b) la suppression des examens d'entrée au gymnase, (c) l'utilisation du grec moderne, (d) la réorganisation de l'enseignement post-obligatoire en lycées d'études générales ou techniques, (e) l'inclusion d'études sociales et d'une initiation à la démocratie dans les programmes d'enseignement, (f) le principe explicite que l'un des buts essentiels du gymnase et du lycée était de renforcer l'esprit démocratique. Ces dispositions, jointes à l'amélioration de la formation des enseignants, à un matériel didactique plus perfectionné et à un programme "modernisé", étaient censées garantir les moyens, l'infrastructure, le milieu et l'enseignement nécessaires à une expansion des possibilités d'instruction et à la diffusion des principes démocratiques. En même temps, elles devaient renforcer l'efficacité de l'enseignement et de l'économie.

L'enseignement et l'efficacité

On a fréquemment reproché au système d'enseignement grec, et en particulier à l'enseignement secondaire et post-secondaire, de ne pas être efficace dans les fonctions pédagogiques et socio-économiques qu'il était censé assumer. C'est ainsi que de

nombreux élèves abandonnaient les études avant la fin de l'école secondaire (c'est-à-dire le gymnase, dont la durée était alors de six ans), dépourvus de toute aptitude (intellectuelle ou professionnelle) pour débuter dans la vie ou dans un emploi. D'autres étaient obligés de s'inscrire dans une école technique de niveau moyen après avoir achevé leurs études secondaires.

Cependant, même ceux qui réussissaient à terminer l'école n'étaient guère préparés pour prendre un emploi ou pour continuer leurs études. Dans ces conditions, les frontisteria (écoles privées de préparation aux examens et concours) et d'autres activités para-scolaires prirent un grand essor, tandis que de nombreux diplômés du gymnase étaient voués au chômage ou obligés de suivre une formation pratique pour pouvoir trouver un emploi. On se plaignait souvent de l'ignorance de certains diplômés du gymnase (qui avaient des lacunes extraordinaires dans des matières qu'ils étaient supposés connaître, telles que l'histoire, les mathématiques ou le grec). Cette faillite de l'école était attribuée à la médiocrité de l'enseignement, aux effectifs trop nombreux d'élèves par classe et par professeur, à l'insuffisance des installations, enfin, aux programmes d'études et aux méthodes de sélection, jugés anachroniques (par exemple, le système des examens), bref, aux conditions qui prévalaient dans le pays au moment où M. Caramanlis forma son premier gouvernement.

Les pouvoirs publics se proposaient de réorganiser et de moderniser les programmes d'enseignement, d'améliorer la formation des professeurs et de rendre les procédures de sélection plus judicieuses. Le Centre d'études sur l'enseignement et de formation en cours d'emploi (KEME) s'est très activement consacré à toutes ces questions et, encore aujourd'hui, poursuit ses efforts. Le programme de formation en cours d'emploi des professeurs d'école secondaire (SELME) en est à sa deuxième année d'application, et le projet de loi relatif à l'élévation des écoles normales d'instituteurs au rang d'établissements universitaires est prêt.

Dans le domaine de l'aménagement des programmes, la nouvelle grammaire de la demotiki est terminée et les anciens manuels en katharevousa ont été refondus dans une nouvelle version en demotiki. En outre, la loi n° 309 prescrivait l'inclusion de sujets "techniques" dans le programme du gymnase, et diverses commissions du Centre examinent actuellement comment l'orientation professionnelle et les techniques de l'enseignement pourraient être appliquées au mieux dans les écoles. Le Centre a aussi publié de nouveaux règlements d'admission aux établissements d'enseignement post-secondaire qui sont déjà entrés en vigueur.

Parmi les autres mesures d'aménagement des programmes qui visent à moderniser l'enseignement et à en améliorer l'utilité, il convient de mentionner l'obligation d'utiliser la demotiki dans les cours et les manuels et de faire étudier les textes de la littérature grecque classique dans des traductions en grec moderne. Pendant longtemps, les adversaires du système existant avaient prétendu que la suppression du grec moderne populaire était nuisible au développement intellectuel et culturel de la jeunesse hellène et à la formation d'une conscience nationale. Toutefois, on estimait aussi que les études classiques (qui comprenaient essentiellement le grec ancien) faisaient partie intégrante de l'enseignement grec et de la civilisation grecque et, partant, de la spécificité grecque.

Les failles que nous venons de mentionner rendaient aussi l'enseignement inefficace du point de vue économique. On estimait que les élèves quittaient le système scolaire mal préparés pour répondre aux exigences économiques individuelles et collectives. L'enseignement technique et professionnel était très négligé par rapport à l'enseignement général et celui-ci, dispensé au gymnase, était jugé trop classique, trop humaniste

et trop littéraire. Cette situation passait pour être peu satisfaisante pour le développement économique de la Grèce et compte tenu du désir de ce pays d'adhérer aux Communautés européennes. Aujourd'hui plus que jamais, l'efficacité économique est le principal argument invoqué en faveur de la réforme de l'enseignement.

M. Caramanlis déclara lui-même, à l'époque où il était Premier ministre, qu'il fournirait toutes les ressources financières nécessaires à l'expansion de l'enseignement technique et professionnel et à un accroissement du nombre des élèves dans les écoles techniques. Le chef de l'EDEK, principal parti de l'opposition, estimait que l'enseignement était "l'investissement social le plus productif". Il insistait pour que les programmes fussent mieux adaptés aux exigences de l'économie et préconisait d'aligner les taux d'inscription aux écoles d'enseignement général et à celles d'enseignement technique et professionnel sur ceux qui existent dans les autres pays d'Europe.

Dans le souci d'améliorer l'efficacité économique de l'enseignement, l'enseignement secondaire post-obligatoire fut diversifié en une filière d'études générales et en une filière d'études techniques et professionnelles. De même, les pouvoirs publics s'efforcèrent d'augmenter le nombre des inscriptions dans les écoles techniques et professionnelles secondaires et supérieures. A cet effet, les examens institués à l'issue du gymnase furent conçus de façon à avoir un effet plus "distributif" que sélectif, en ce sens que les élèves qui réussissaient aux examens d'entrée à l'école d'enseignement général et à l'école d'enseignement technique et professionnel pouvaient opter librement entre l'une ou l'autre.

4. LES REFORMES : THEORIES ET PRINCIPES

Les courants de réforme qui se sont produits pendant chacune des périodes décrites ci-dessus ont tous été dus à des circonstances et à des considérations (politiques, sociales et économiques) particulières, aussi bien internes qu'externes. Les grandes lignes d'action et les mesures adoptées reflètent, de leur côté, les principes et les considérations d'ordre pratique dont s'inspirait le gouvernement au pouvoir, ainsi que les tensions et les contradictions inhérentes à toute société profondément enracinée dans le passé qui cherche à se moderniser. On n'en constate pas moins une concordance frappante dans les idées, les principes et les hypothèses formulés au sujet de l'importance de l'instruction pour le particulier et la société, des devoirs qui incombent aux pouvoirs publics dans l'organisation et la supervision de l'enseignement, de la nature, de l'organisation et de la diffusion des connaissances, de l'aptitude de la population à s'instruire, de la culture classique, enfin, de la science et de la technique.

L'enseignement, le développement et la société

La réforme de l'enseignement a été menée en fonction d'une certaine conception de la structure de la société hellène et de son développement, et de certaines idées au sujet de l'importance que revêt l'école dans l'économie et la politique grecques. C'est ainsi que les promoteurs de la réforme souscrivaient à la thèse, défendue dans les ouvrages spécialisés de tous les pays et sous-jacente dans les plans de réforme des années 1950 à 1970, thèse suivant laquelle un système d'enseignement plus vaste, rationnel, rentable et "moderne" pourrait apporter une contribution importante à la prospérité économique, à la stabilité sociale et à l'amélioration des conditions de vie. Le premier plan quinquennal pour les années 1960 à 1964 reposait sur le postulat que le développement des ressources humaines et l'enseignement technique étaient indispensables à une transformation rapide de l'économie grecque, essentiellement agricole, en une économie industrielle, et à une amélioration des conditions de vie telle que la Grèce

puisse atteindre le même niveau de vie que les pays hautement industrialisés d'Europe. L'exposé des motifs du décret législatif n° 4379 de 1964 contenait, entre autres, les constatations suivantes : "Il serait nuisible à la prospérité de la nation si, faute d'instruction, ses ressources humaines - son capital le plus précieux - demeuraient sous-utilisées et inactives... En outre, il a été unanimement reconnu et proclamé que les dépenses afférentes à l'enseignement constituaient une forme particulièrement rentable d'investissement".

L'optimisme qui régnait au sujet des bienfaits économiques et sociaux de l'instruction se maintint pendant les années 1970 à 1980 et se manifesta avec une vigueur renouvelée lors des débats sur les réformes de 1976 et 1977 (lois n° 309 et 576) et sur le plan quinquennal de développement pour les années 1978 à 1982. Dans le discours qu'il prononça au Parlement lors du débat sur le projet de loi relatif à l'enseignement technique, le sous-secrétaire à l'Education déclara : "Il est prouvé qu'une main-d'oeuvre instruite est le principal facteur de production (plus important que le capital) dans tous les régimes d'économie libre." Il continua en ces termes : "Les événements passés ont aussi montré que les personnes dépourvues d'instruction ou de qualifications se laissent trop facilement exploiter à des fins sociales et politiques."

Pour le moment, les idées dont s'inspire la politique en Grèce ne présentent aucune trace du scepticisme ou des réserves manifestés dans les études ou les déclarations officielles d'autres pays au sujet des effets économiques ou sociaux du système d'enseignement.

A ces théories, il convient d'ajouter certains courants idéologiques qui ont inspiré la politique de développement des pouvoirs publics. De toute évidence, la vision d'une société meilleure et l'objectif de la modernisation portaient la marque de la démocratie libérale, qui accorde une place prépondérante à l'économie de marché, à l'entreprise privée, à la compétition pour les emplois vacants, à la spécialisation et à la méritocratie.

C'est de cette conception que découle une partie des principes sur lesquels repose la réforme de l'enseignement en Grèce. On estimait, par exemple, comme nous l'avons déjà dit, que l'enseignement peut contribuer à la croissance économique et à la modernisation. Cette idée a pour corollaire que l'enseignement peut devenir un agent du changement social. On ne saurait toutefois oublier que la nature et l'orientation de la croissance et de la modernisation étaient elles-mêmes conditionnées par la politique libérale de développement économique qui a également fourni l'élan et les principes directeurs nécessaires aux réformes de l'enseignement dont elle a, à plus forte raison, défini les limites. A cet égard, on peut dire que l'enseignement avait pour but de s'ajuster ou de s'adapter aux exigences dictées par le modèle de développement économique. Les besoins nouveaux issus de la politique de développement et de ses objectifs obligeaient, en particulier, à améliorer l'instruction de l'ensemble de la population, à augmenter l'effectif de personnel hautement qualifié, notamment dans les domaines scientifiques et techniques et, d'une façon générale, à créer un système d'enseignement plus fonctionnel et plus efficace (grâce à de meilleures méthodes de sélection et de répartition, à des programmes et à des méthodes d'enseignement plus modernes, etc.).

L'un des principaux buts visés dans les réformes qui se sont succédé au cours des vingt dernières années était de conférer une efficacité fonctionnelle suffisante à l'enseignement. Dans l'ensemble, les considérations relatives à l'équité sociale (autrement dit, aux aspects distributifs de l'enseignement) n'ont guère retenu l'attention des réformateurs, qui n'ont pas davantage tenu compte de la participation, alors que ces questions ont joué un si grand rôle dans les réformes d'autres pays à régime libéral.

La société, le particulier et les pouvoirs publics

Certains éléments de la démocratie libérale dont se réclament les pays occidentaux se trouvent aussi, implicitement ou explicitement, dans la définition que les réformateurs ont donnée du rôle des pouvoirs publics vis-à-vis du particulier ainsi que dans les réformes relatives à la scolarité obligatoire, à l'admission et au déroulement des études dans les établissements d'enseignement, à la sélection et aux examens.

On ne saurait oublier que l'individualisme est l'un des principes fondamentaux du libéralisme démocratique classique, comme l'a si bien montré Daniel Bell*. Dans cette optique, c'est l'individu et non la collectivité ou l'Etat qui est l'élément le plus important de la société, et toutes les "dispositions d'ordre social ou les mesures gouvernementales ont pour objet de conférer à l'individu la liberté dont il a besoin pour accomplir ce qu'il s'est proposé." Cependant, tous n'ont pas les mêmes talents, les mêmes mobiles ou la même énergie. C'est pourquoi les dispositions d'ordre social devraient comprendre les moyens et les possibilités nécessaires pour qu'une compétition équitable puisse s'instaurer entre les individus et que ceux-ci soient à même d'atteindre leurs objectifs en fonction des intérêts et des aptitudes qui leur sont propres. Cette constatation a pour corollaire que, s'il appartient aux pouvoirs publics d'essayer de supprimer tous les obstacles inéquitables et de créer des possibilités de carrière conformes aux talents de chacun, c'est en revanche à l'individu qu'il appartient de tirer pleinement parti de ces possibilités et de ces mesures. Le degré auquel il en profitera dépend évidemment largement de ses talents, de ses mobiles, de son énergie et de sa volonté, éléments sur lesquels l'Etat n'a aucun pouvoir.

Dans les pays occidentaux à régime libéral, on a souvent tiré des principes esquissés ci-dessus plusieurs conséquences pour la politique de l'enseignement et invoqué ces idées libérales pour justifier les réformes effectuées. Dans nombre de ses hypothèses et des lignes d'action appliquées, en particulier celles qui concernent la structure du système d'enseignement, la réforme scolaire grecque présente des analogies frappantes avec l'évolution libérale que l'enseignement a connue dans d'autres pays du monde occidental. C'est ainsi que la prolongation de la scolarité obligatoire gratuite vise à rendre l'enseignement universel au moins jusqu'à l'âge de quinze ans, à donner à chacun la possibilité de développer ses aptitudes et à choisir ses études ultérieures et sa profession conformément à ses intérêts et à ses capacités. La création d'un système équitable d'examens, organisés et administrés par l'Etat, garantit que les élèves seront admis et promus aux divers niveaux du système d'enseignement en fonction d'une évaluation de leurs aptitudes, et non selon leur origine sociale. De même, la réorganisation des écoles en un gymnase général unique, suivi de lycées différenciés et d'écoles d'enseignement professionnel, garantit à la fois l'universalisation déjà mentionnée de l'instruction et sa diversification, tout aussi indispensable, en fonction des aptitudes de chacun. Cette réorganisation de l'enseignement, jointe à celle du système d'examens, est conforme aux deux principes du libéralisme que le sociologue Talcott Parsons a appelés "l'universalisme" et la "capacité", et qui remplacent le "particularisme" et la "prédestination".

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* Daniel Bell, The Coming of Post-Industrial Society, Penguin Books, 1973, p. 425.

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